



Photograph by John L. Blackford

YUCCA PEACE

By EDNA O'BRIEN
Ontario, California

They left the small rooms,
The narrow walls, the giddy
Speed and loud distractions
Of a rushing city
And came as weary strangers
Into a larger space
Where nothing louder was
Than desert wind. A place
Where traffic was untamed
Coyote, lizard, hare
And other small earthlings
That quietly go unnamed.
They came into a world
Of juniper-command,
Of rock-serenity,
Of yucca-peace and sand.
They came into a place
Where sounds were whisperings
And something in their eyes
Awoke and spread bright wings.

• • •

BUDGING RODS

By ALICE TENNESON HAWKINS
San Pedro, California

I do not doubt that Aaron's rod burst green
With miracle of buds for I have seen
Dead, prickly, tips of ocotillo flame
With flowers when the desert springtime
came.

DESERT RAINBOW

By ANNA A. LINDSAY
Encino, California

Finally
The road escaped its mountain trap
With a writhing lurch
That hurled it out upon the desert floor
Flattened, parched, despairing in its search
For watered places.
But there in front a rainbow arched
And the grateful road,
Uncaring for a pot of gold,
Treasured the thought instead
That where there is a rainbow
There is rain,
And straight into the rainbow
Forged ahead.

Here and Now

By TANYA SOUTH

Heaven's for the taking
Here and now.
Life is for the making
If you allow
The little elements of Hope
And Faith and Love to play their part
In every inch you upward grope,
And give you heart,
All valiantly, up ever higher
To aspire.

Sentinel of the Desert

By ELLEN BALLARD RUBERG
Santa Barbara, California

Lonely sentinel of arid, desert lands,
Standing serene beneath the sun's fierce
rays,
Or calm and silent amid storm-sand blast.
On watch through silver nights and golden
days,
You are a symbol of that patience, hope
and trust
Which bears with fortitude the cross you
must.

Unmoved by buffettings of wind and cold,
Your branches raised toward heaven's dome,
Seem to say God's love will you enfold—
As His creatures small find in you a home.
Teach me the secret of your spell—
That in His peace, I, too may dwell.

• • •
ANGEL ON SAN JACINTO

By PAUL WILHELM
Thousand Palms, California

Enduring on the mountain side
In touch with desert sky
Where silent years forever bide
Nor sunbeams ever die,

Is an Angel carved in stone
Its wings of white unfurled
With granite beauty upward blown
Above the desert world;

An Angel in the peerless skies
Behold, this lovely thing!
The unbelievers raise dull eyes
And waking spirits sing;

It watches through the doubtful night
Stone Angel heart ablaze,
Gleaming from San Jacinto's height
It gladdens darkened days;

For, lifting from the earth's gray mire,
This Caller from Heaven
Alights the torch of Angel fire
A flame of hope to men.

• • •
SUNSET IN THE PASS

By CLARINDA K. MERSHON
Cathedral City, California

When evening magenta cloaks Mount San
Jacinto
And shadows leave canyons for desert
below;
When the sun's goodnight glow floods Gor-
gonio's turrets
And dry sands bid welcome to clean
mountain snow;

The winds then grow wild, the skies fill
with black
And white sands pile high on the foot-
hills' broad back.
But the storm soon subsides and coral tints
bles
The landscape with quiet and soft gentle-
ness.

When evening magenta creeps down San
Jacinto,
God's pure light caresses his children
below.
In Mount San Gorgonio's sunlight and
shadow,
He breathes down from Heaven to set
hearts aglow.

Scien.

DESERT CALENDAR

- December 31—Deer Dance, Sandia Pueblo, New Mexico.
- December 31—Annual Pegleg Smith Liars' Contest, Borrego Valley, Cal.
- January 1-31—Special exhibit of Indian beadwork and porcupine quill work, Southwest Museum, Highland Park, Los Angeles, California.
- January 1—Comanche dances, Plaza, Rancho de Taos, New Mexico.
- January 1-3—Southern California Chapter, Sierra Club camping trip to Hidden Springs and Box Canyon in the Little San Bernardino Mountains near Indio, California.
- January 1-3—Desert Peaks Section, Southern California Chapter, Sierra Club climb of Rabbit Peak in Santa Rosa range. Rendezvous at Borrego Springs, California.
- January 6—Three Kings' Day dance, Taos Pueblo, Taos, New Mexico.
- January 10—Don's Club Travelcade on the Apache Trail. From Phoenix, Arizona.
- January 10—Desert Sun Ranchers' Rodeo, Wickenburg, Arizona.
- January 16—Deadline for entries, ninth annual International Nature Photography Exhibition, Nature Camera Club of Chicago. Entry forms available from Blanche Kolarik, Box 52, Apache Junction, Arizona.
- January 16-17—Southern California Chapter, Sierra Club natural science trip to Borrego State Park, California.
- January 16-17—Don's Club Travelcade to Nogales. From Phoenix, Arizona.
- January 24—Desert Sun Ranchers' Rodeo, Wickenburg, Arizona.
- January 24—Don's Club Travelcade to Pima Indian Reservation. From Phoenix, Arizona.
- January 25—St. Paul's Day Dance, Taos Pueblo, Taos, New Mexico.
- January 31—Gold Rush Days, Wickenburg, Arizona.



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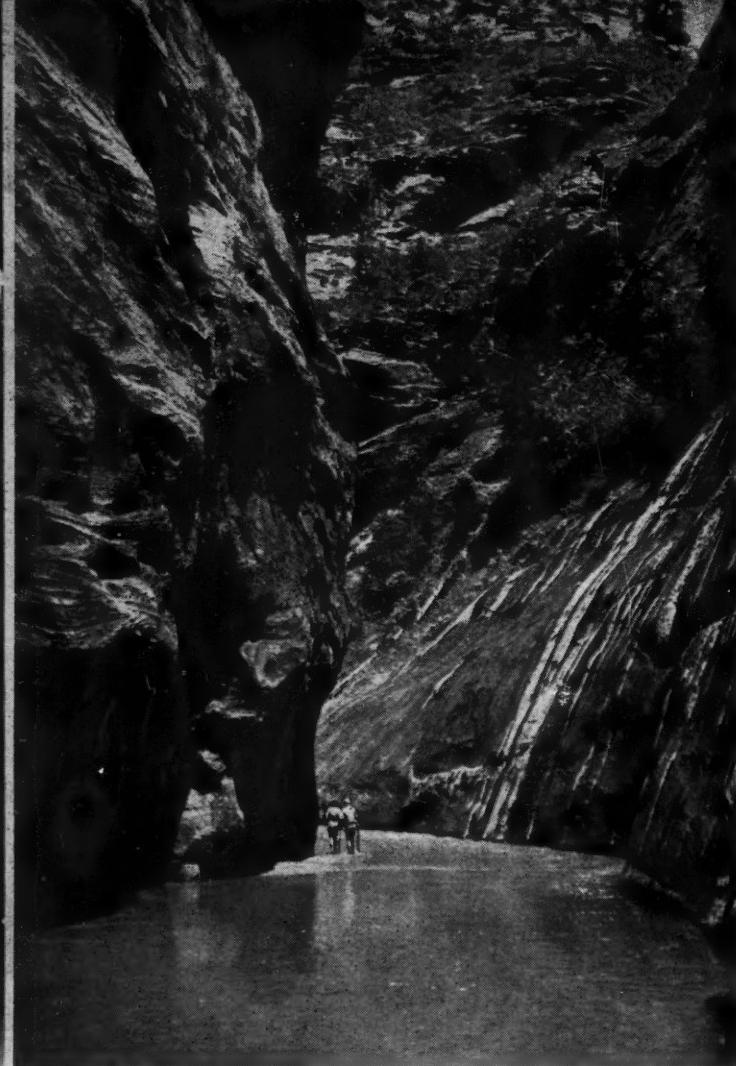
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Entering the main canyon of the Zion Narrows from above stream is an impressive and unforgettable experience.



Just before reaching the public trail at the end of the Narrows, the shadowed gorge widens to admit more sunlight.

Through 'The Narrows' to Zion

Most of the folks who visit Utah's Zion National Park ride into the area over paved highways and do their sight-seeing from easy trails. But here is one group of adventurers who chose to enter Zion the hard way—through the spectacular Narrows of the Virgin River. It is a wet and hazardous route—and here is the story of the experience.

By FREDA B. WALBRECHT
Photos by Nathan C. Clark
Map by Norton Allen

HERE THE North Fork of the Virgin River enters the Temple of Sinawava in Zion National Park, the Zion Narrows commences, a fantastic defile extending 25 miles northward through the Kolob Plateau. In places it is only 20 feet wide, with the walls of the gorge towering more than 2000 feet above.

I first heard of this canyon a number of years ago from a member of the Zion Narrows Club, a group composed of hikers who had traversed the Narrows. He described the hazards of the trip—the deep places where, if the water is high, one must swim, and the danger of being caught in a flash flood when the water might rise 30

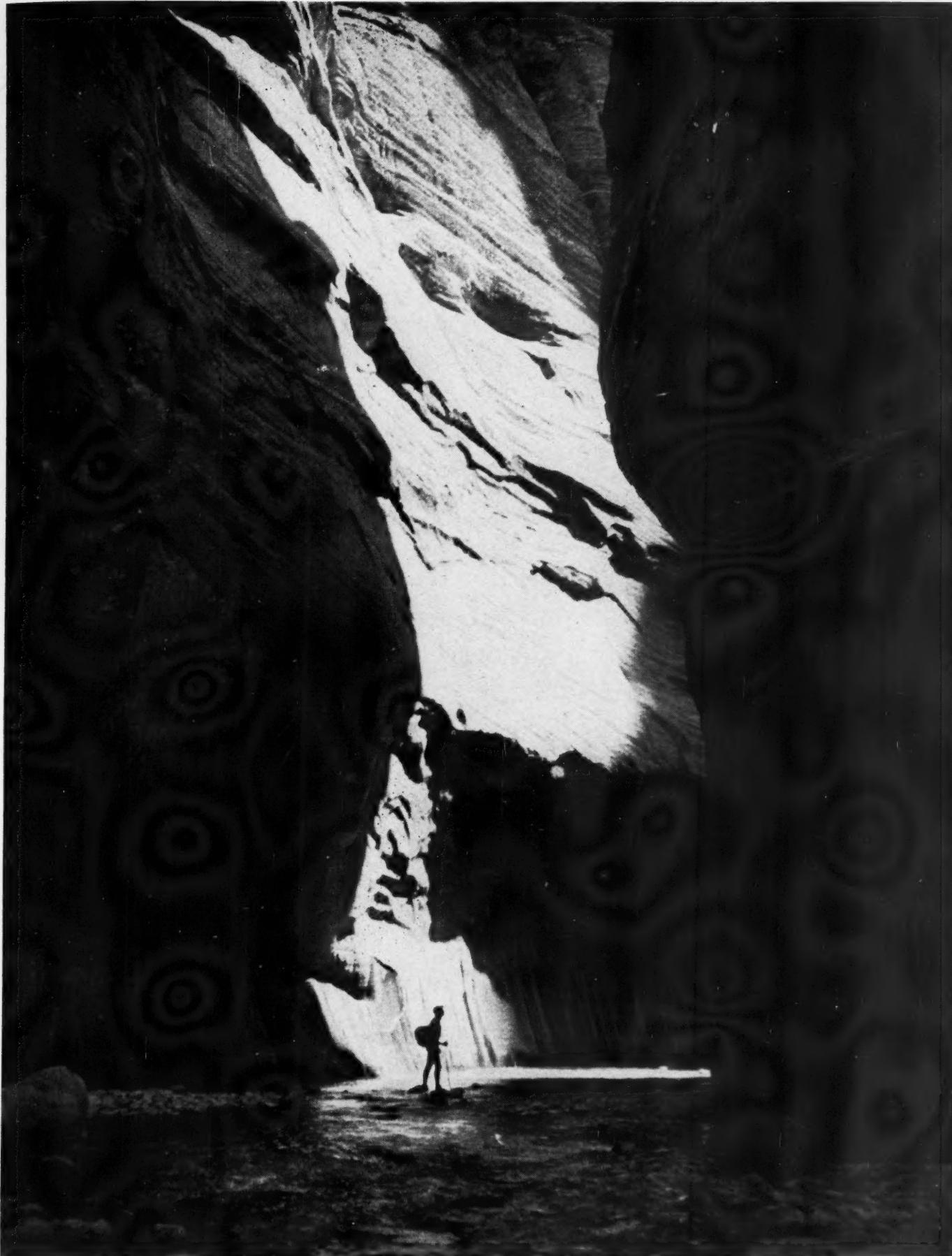
feet in the narrowest places and there would be no escape.

My opportunity to make this trip came when I met Dr. Reed Farnsworth of Cedar City last spring in Navajo Canyon. Dr. Farnsworth had been through the Narrows several times, and he offered to lead a group of us in October when the likelihood of floods was least.

Late one Thursday night eleven of us piled sleeping bags and food packed in waterproof plastic into Georgie White's truck and headed for Cedar City, Utah. In our party were Ruth Randall, Lefty Bryant, Tom Corrigan, Leroy Arnold, Georgie White and myself, all Sierra Club members. Martha

McCoy of San Francisco missed us at Barstow but joined us later at Cedar City. Allen Crockett, Justice of the Utah Supreme Court, came down from Salt Lake City. Theron Aschcraft, teacher in the Cedar City College, Gus Larsen, Cedar City minister, and our leader completed the party. Friday night camp was made on Dr. Farnsworth's lawn.

Early Saturday morning we left Cedar City, driving through forests where aspen formed golden patterns against the green of pine and fir, past Navajo Lake, then turning onto a good unsurfaced road to a ranch on the North Fork where the trail to the Narrows begins. We parked our cars,



In the main canyon of the Zion Narrows, near its junction with Orderville Creek, man is dwarfed in the immensity of sheer canyon walls.

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Through this narrow defile the North Fork leaves its own canyon to join Deep Creek, entering from the north (left).

Reed having arranged to have them driven around to the Park, and started our journey on foot.

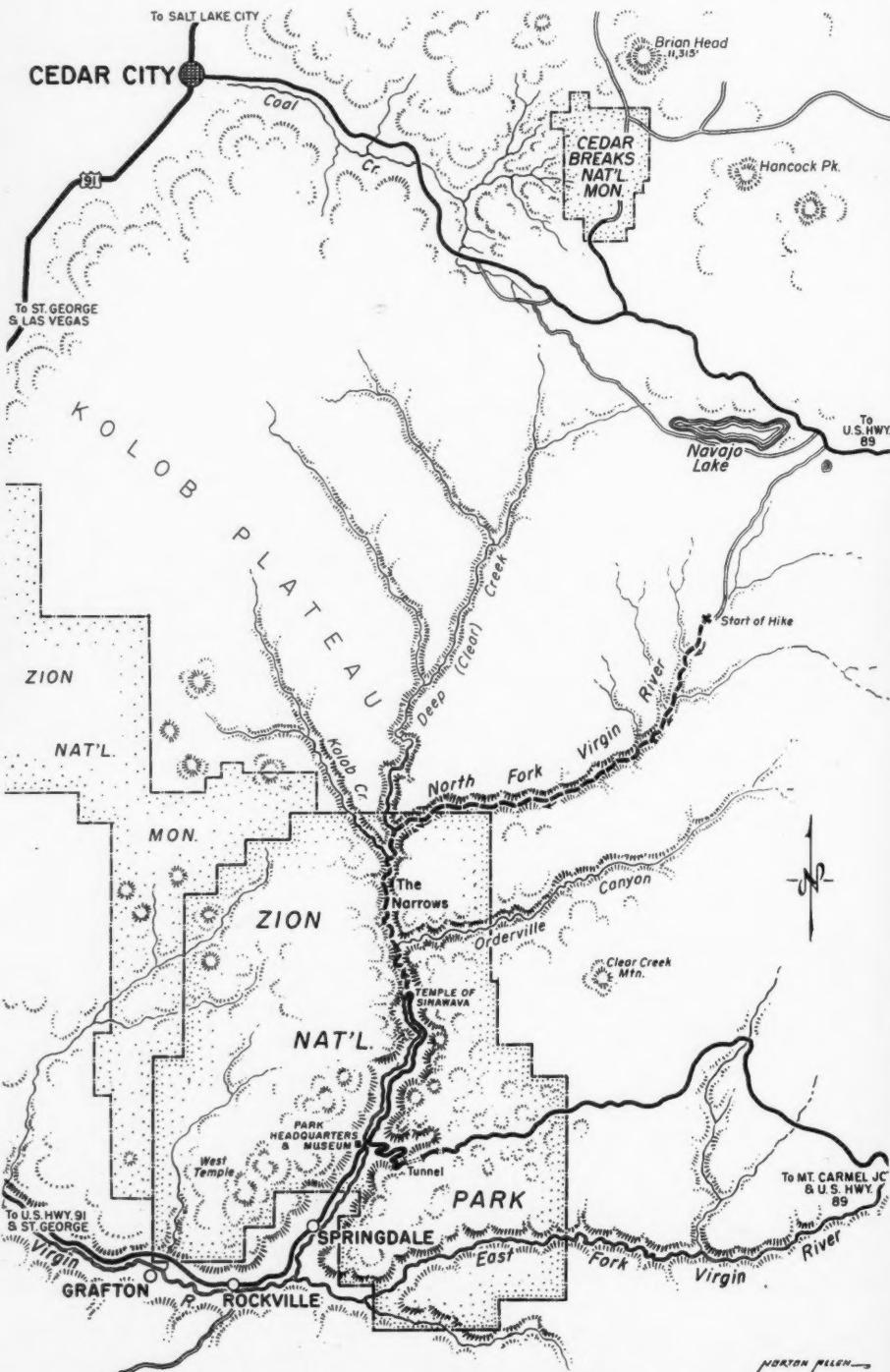
The upper canyon is quite unpretentious. Large pine trees stand against a backdrop of red sandstone cliffs, and the trail descends gradually. The water was so shallow we thought at first to wade downstream in the creek bed, but we found the bottom covered with rocks of all sizes, all exceedingly slippery. The water is so silt laden it is impossible to see the bottom, even where it is fairly shallow. We soon learned to slide one foot over a rock to firmer footing before taking the next step, and to cross the creek countless numbers of times, seeking the security

of dry rocks along the bank. Still, many a ducking we took as our feet slipped on deceptive rockholds.

The upper part of the canyon was ablaze with the red and gold of autumn colors cloaking sycamore, aspen and birch. Rocks took on weird shapes and forms. We came to the Devil's Needle, a monolith jutting up several hundred feet between the narrow walls. In a bend of the canyon we found an inverted cone, with perfect rings circling the rock and a pine tree growing from its apex. On inaccessible ledges, trees and bushes grew out of the vertical walls. Little more than an hour after lunch, we came to a 30-foot

waterfall, which we passed by scrambling up the cliff walls and through a convenient notch where once the stream had followed a higher channel.

After another hour we came to one of the narrowest and most beautiful sections of the gorge — where three people standing abreast can touch opposite walls, rising 2,000 feet above. About four o'clock we came to a slight widening in the canyon at its junction with Deep Creek, or Crystal Creek as the clear stream is called locally. This was our campsite for the night. It was a perfect spot, with huge piles of driftwood to assure blazing fires and sandy spots for our sleeping bags.



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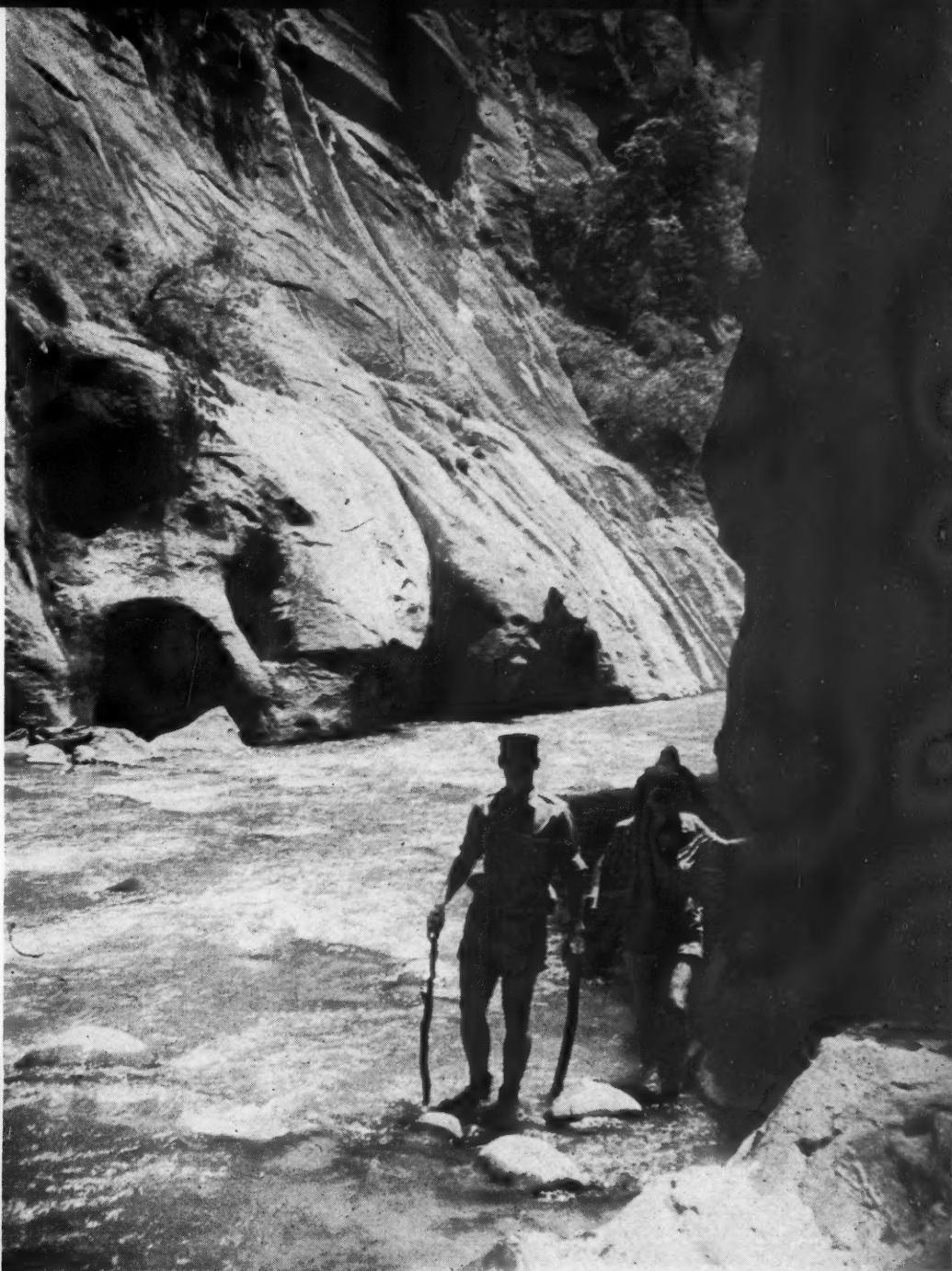
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Clouds had been drifting across the slit of sky between the narrow canyon walls overhead, and we expected a drenching before morning. We hoped that no flood would be started upstream, to threaten our chasm. But during the night the clouds drifted away and by morning all was clear in our T-shaped bit of heaven.

Through countless eons the waters of this stream have been eating into the heart of the high Kolob Plateau, bearing loads of silt down to the Colorado. The Virgin River carries over 3,000,000 tons of rock waste to the Colorado each year, which amounts to about 80 carloads a day.

I couldn't help wondering how the first travelers through this gorge must have felt, not quite sure of what they would find, what dangers they might face, whether they could get through. Fathers Dominguez and Escalante, who probably were the first white men to enter Utah, crossed the Virgin River in 1776, but they did not get near enough to Zion Canyon to see it. Jedediah Smith named the Virgin after one of his companions, Thomas Virgin. In 1872 G. K. Gilbert traversed the North Fork, naming the miles of canyon floor "the Narrows — the most wonderful defile it has been my fortune to behold."

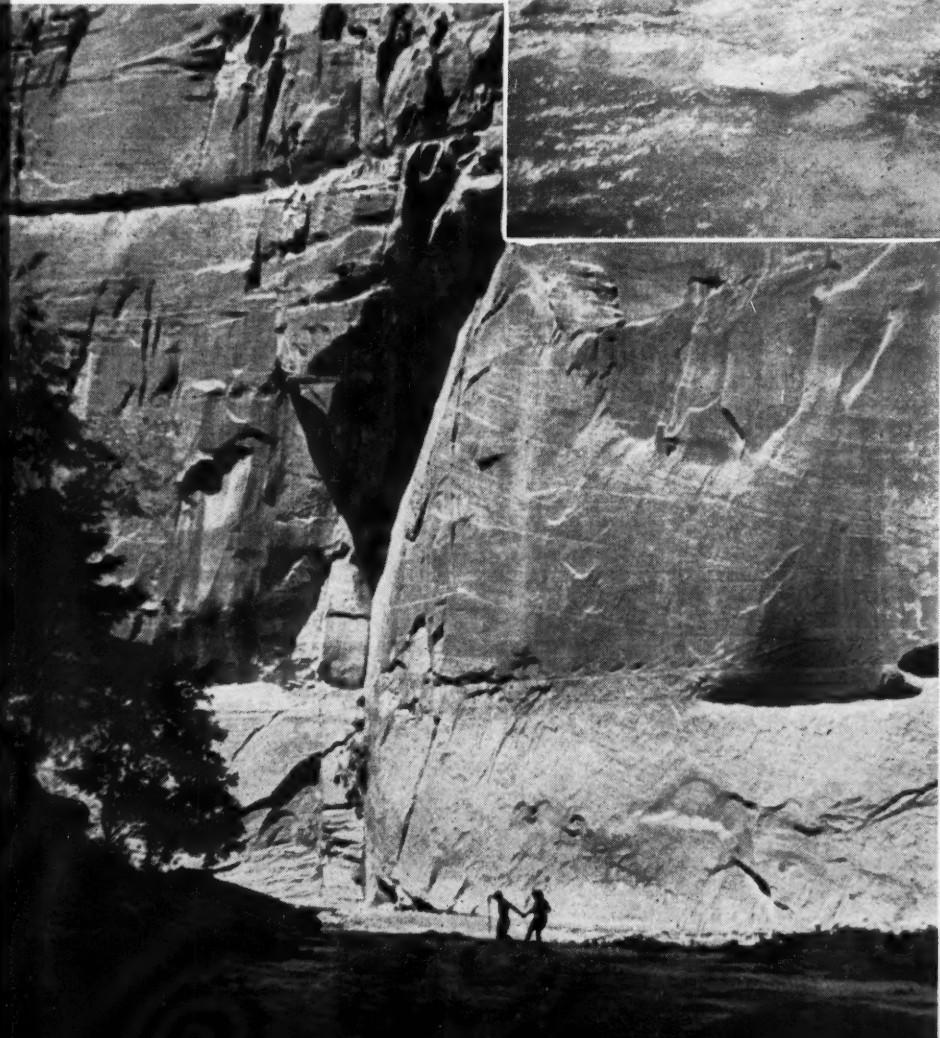
Daylight came to our constricted world. While the sun shone on the



The hikers soon learned to establish footing before taking each step, and to cross the creek countless numbers of times, seeking the security of dry rocks along the bank.

top of a great white dome rising above the walls of Crystal Creek, we were lost in shadow as we cooked breakfast. Soon we were on our way again. With the added waters of Crystal Creek the stream had become swifter, deeper.

We were now approaching the portion of the canyon which is marked "Narrows" on the map. Here for periods of a half hour to an hour it would be impossible to find an avenue of escape should high water come. And high water does come—in the spring when the snow melts and again during summer rains. Water markings on the rock walls 30 feet above the



stream bear witness to past floods. And deep water is not the only danger a cloudburst would present; swirling logs and rocks would doom even the ablest swimmer.

Crossing and re-crossing the swift current, we plodded on through dim corridors. By one o'clock we had reached Orderville, a creek which enters the North Fork through a dark and barren side canyon. The currents of air had been surprisingly warm all day, but here the atmosphere suddenly chilled, adding to the gloomy aspect. We had been in deep water for hours and, thoroughly soaked, were shivering with cold. Reed and Theron found one lone stick of driftwood and managed to kindle a fire over which we

sought to dry and warm ourselves while waiting for the rest of our group. After a few minutes of attempted conversation through chattering teeth, we decided they could follow our footprints with little trouble. We hurried on.

As we approached Zion Park, more water was coming into our stream through springs and seepage in the walls, and at times the current was so strong we could scarcely stand against it. At one point I stepped on a sloping, submerged rock, teetered, then fell, ruining one of my cameras.

Fed by seepage through its walls, the canyon took on a greener aspect. Beautiful grottoes of ferns appeared. Cascades glided down, hugging the

rocks. Water ouzels and other canyon birds skimmed the water.

An hour after leaving Orderville, above the noise of the rushing waters we heard shouts. Soon we saw our Cedar City friends who had driven our cars around to the Park and hiked up to meet us. In the group were Tom Clark with his two young sons and William Flannigan, who many years ago made one of the first trips through the Narrows.

At 3:30 we made the final crossing and stepped onto the pavement of the Park trail, where Whitey White was waiting for us. With the music of the rushing waters still ringing in our ears we reached the cars, an unforgettable adventure behind us.

LIFE ON THE DESERT

By RAE VON DORNUM

I sing of Kehama, the desert's stray pup.

The shaft's going down, and the stock's going up.

The wind that blows o'er it is fitful and dry,

The lonesomest place beneath the whole sky.

I will always remember its curse and its spell;

Kehama surely is next door to Hell.

"*You have come to a land accursed,*" was the greeting

Charlie Hanus received from his nearest neighbor when he and his wife and daughter arrived at their isolated property in the southwest corner of Lincoln County, Nevada, to make their home.

Accursed or not, Charlie loved the desert, and he laughed at the warning. After all, he was going to mine gold; the neighbor's mine, 15 miles away, was lead. Charlie had owned a gold mine in the Groom district for a number of years, and he was sure he could make this one pay.

Hanus had the soul of a dramatist, and the more he thought about the miner's strange greeting, the more it fascinated him. "A land accursed." It reminded him of Robert Southey's poem, "The Curse of Kehama." He decided to call his mine Kehama.

During the early 1930s, the Hanus family lived at Kehama and worked the mine—a wide vein of low grade gold with an occasional high grade streak or pocket. It wasn't an easy life. The surrounding desert was barren, and wood for heating and cooking had to be hauled from the tim-

bered mountains in Charlie's Ford and trailer. The nearest water was at Cattle Springs, several miles away.

In spite of these hardships, the family was a happy one, and all of them, including two dogs, two cats and Greta the goat, wended their way up the hill each day in search of Kehama's gold.

The only machinery of which the mine could boast was a hoist. Drilling was done by hand, and the ore from the high grade pockets was ground in an old arrastre. Concentrates were shipped to the mint in San Francisco.

Engineers visited Kehama, looked over the vein and sampled the ore. There was talk of building a mill at Cattle Springs, but money was scarce in those days, and the engineers soon stopped coming, talk died away.

During Christmas week in 1936, Charlie, who was working on a PWA road project in Caliente, was stricken with a sudden illness. He was rushed to the hospital in Cedar City, Utah, where he passed away. In accordance with his last wishes, he was buried on the hillside at Kehama, in the heart of the desert he loved.

A few days after Charlie's funeral came the big snow. Mrs. Hanus and her daughter were snow-bound and alone at the mine. They could look down the hill and see the car of the Pettyman party, trapped on the flat below. But try as they might to attract their attention, the Pettymans—only two miles away and in plain sight of Kehama—fought their way instead to the lead mine 15 miles distant. One member of the party perished.

The crew from Las Vegas which broke the road to the Pettyman car

was not aware that there was anyone at Kehama, and they went away leaving two miles of waist-deep snow between the Hanus women and freedom. Those first days, planes flew day and night over the area looking for the Pettyman party, but the signals from Kehama went unnoticed.

Many lonely hungry days elapsed before rescue finally came, but the road crew in Lincoln County, with whom Charlie had worked, hadn't forgotten that Nell Hanus and her daughter Helen were at Kehama. These men broke road through almost a hundred miles of snow to reach them. Later Helen married one of the men in the rescue crew.

After this experience, the two women moved to Caliente where Helen worked as an arts and crafts teacher until her marriage.

Nell Hanus and her daughter, Helen Hanus Coyle, still reside in Caliente and still hold title to Kehama. But they no longer dream of a mill to put the property into production again, for Kehama is now inaccessible. The road to the mine crosses the atomic proving grounds, and travel through the area is strictly controlled.

Charlie Hanus had no thought of prophecy when he named his mine, nor did the writer when in 1933 she penned the verse which prefaces this story. But today, the hillside where Charlie lies buried overlooks Frenchman's Flat, and is witness to the noisy, bursting Hell that is the atomic bomb. And as the giant mushroom cloud casts its shadow on the hill, Kehama's curse reaches its fulfillment on the land that bears his name.

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PICTURES OF THE MONTH

Time Out for Chow

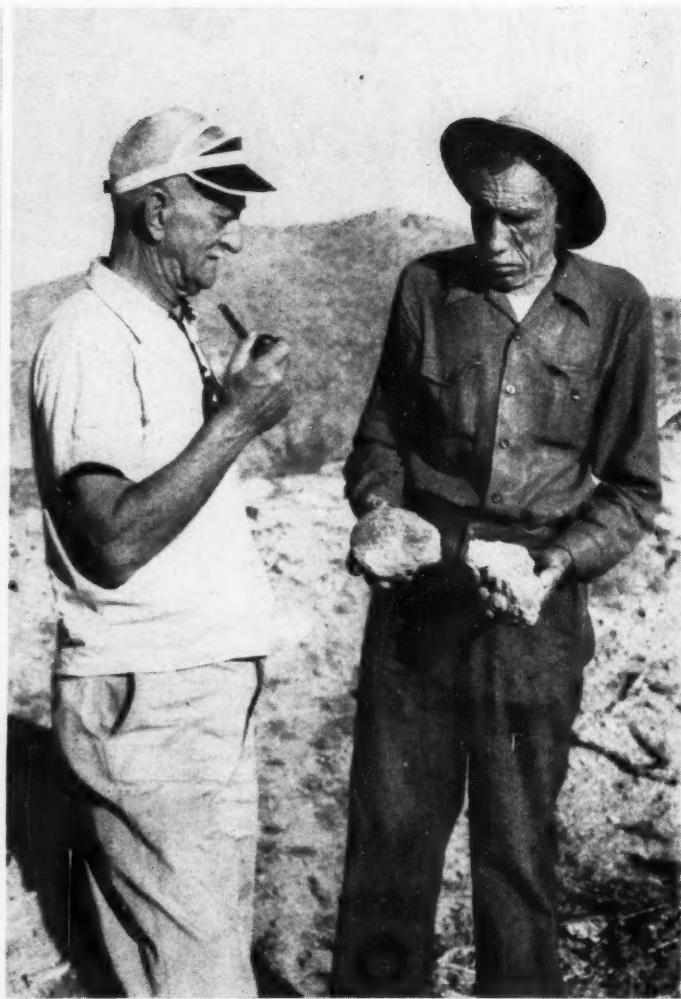
After a morning of searching the Nevada desert for precious ore, an old prospector takes time out for lunch. The picture, first prize winner in Desert's November photo competition, was taken by Adrian Atwater of Carson City, Nevada, with a 4x5 Speed Graphic camera, Super XX film, 1/50 second at f. 22.

Main Street, Calico

Once teeming with fun-loving miners, the main street of the ghost town of Calico, California, now is quiet. Keith Willey of Long Beach, California, won second prize in the Picture-of-the-Month contest with this interesting study, taken with a Speed Graphic camera, Super Panchromatic Press film, K2 filter, 1/100 second at f. 16.



Once a waterhole for desert Indian tribesmen there are 66 palms in this oasis. Salton Sea may be seen in the background.



Guy Hazen (right) shows Charles Faulhaber, Coachella Valley rancher, specimens of fossilized oysters found near the oasis.

Old Indian Waterhole...

Nestling in a little cove at the base of Santa Rosa Mountains near Salton Sea is an ancient Indian waterhole—a palm oasis so little known that it does not appear on any map. But it is of interest to desert explorers today because of the many fossils and collectors' minerals found in the area. This is a field trip for hikers—because the terrain is too rugged even for jeeps.

By RANDALL HENDERSON
Map by Norton Allen

THIRTEEN YEARS AGO when John Hilton first guided me to a pretty little oasis of native Washingtonia palms at the base of the Santa Rosa Mountains overlooking Salton Sea I recorded them in my note book as "Travertine Palms" because of their location near Travertine Point. They were not marked on any map — and Hilton told me he had never heard them mentioned by name.

I counted 66 palms in the group, of which two were tall charred veterans, and the remaining trees of a later gen-

eration. They recently had been burned when Hilton and I were there. The trunks were black and the fronds seared by flames. A newly burned palm tree is a sorry picture. Fire seldom kills the tree, but until a new growth of fronds is produced the tree is as unsightly as a molting chicken.

We found a little spring among the trees, but the pool was so clogged with charred sticks and ashes we could not determine the quality of the water.

It was several years later that I learned the oasis had been given a

name. I was talking with Henry E. W. Wilson, who has searched the Santa Rosa area for the lost Pegleg gold since 1901, and mentioned the Travertine palms.

"Sure I know about that oasis," Wilson said. "I first saw those palms in 1901 when John Collins (for whom Collins Valley was named) and I skirted the base of the Santa Rosas with our pack burros looking for the lost gold. A few months later when a man named Stein came from Long Beach with his two children to visit the Collins family John and I took him on a prospecting trip that led us to this waterhole. It was midday when we arrived there, and while John and I lounged in the shade of the palms, Stein gathered seeds from some of the palms and with a sharp stick began planting them in the damp earth around the spring. We chided Stein

about spending his rest hour planting palm seeds, and always after that referred to the oasis as Stein's Rest.

"Near Stein's Rest, Figtree John, the Indian recluse who lived for many years on the shore of Salton Sea near Travertine Point was believed to have had a gold mine. Beyond the oasis Collins and I found fossil clam shells as large as dinner plates and from four to six inches thick, embedded in a white sediment that looked like chalk.

"Doc Coolidge, formerly of Coolidge Spring, once showed me another deposit of clam shells and many kinds of marine fossils near this place, and on the other side of the ridge is evidence of old Indian caves, one row above the other."

My most recent visit to this oasis was last November when I accompanied Guy Hazen and Charles E. Faulhaber on a jeep trip into this area. We left highway 99 just west of Travertine rocks, which mark the most easterly point of the Santa Rosa range. At .04 mile our unimproved road passed under a power line, and this is as far as it is possible to take a car not equipped for sand travel. We were able to drive the jeep another mile, dropping down into Garnet Wash for a short distance. Then the way was blocked by boulders too big for any car.

Just over a low hill is one of the marine fossil deposits mentioned by Henry Wilson. Guy Hazen, who spent many years in the field as a paleontologist for the American Museum of Natural History, immediately began finding specimens which interested him—and he spent the rest of the afternoon there exploring the extent of this fossil field while Charles Faulhaber and I hiked two miles to the palm oasis.

Passing through the fossil field is an old Indian trail which we were able to follow for nearly a mile before it was lost in the rocks of an arroyo. Undoubtedly Indians living in the Santa Rosa Mountains had followed this trail in prehistoric days to secure salt from the dry basin where Salton Sea was formed in 1905-07. Perhaps before that time this trail also had been used by Indians living on the shores of ancient Lake Cahuilla when they went to the mountains to gather pinyon nuts. There is evidence today that at some prehistoric time—perhaps 800 years ago—the shores of the clear water lake which filled the basin were occupied by large numbers of tribesmen. Evidently the palm oasis was one of the waterholes used by these tribesmen, for beyond the spring it is

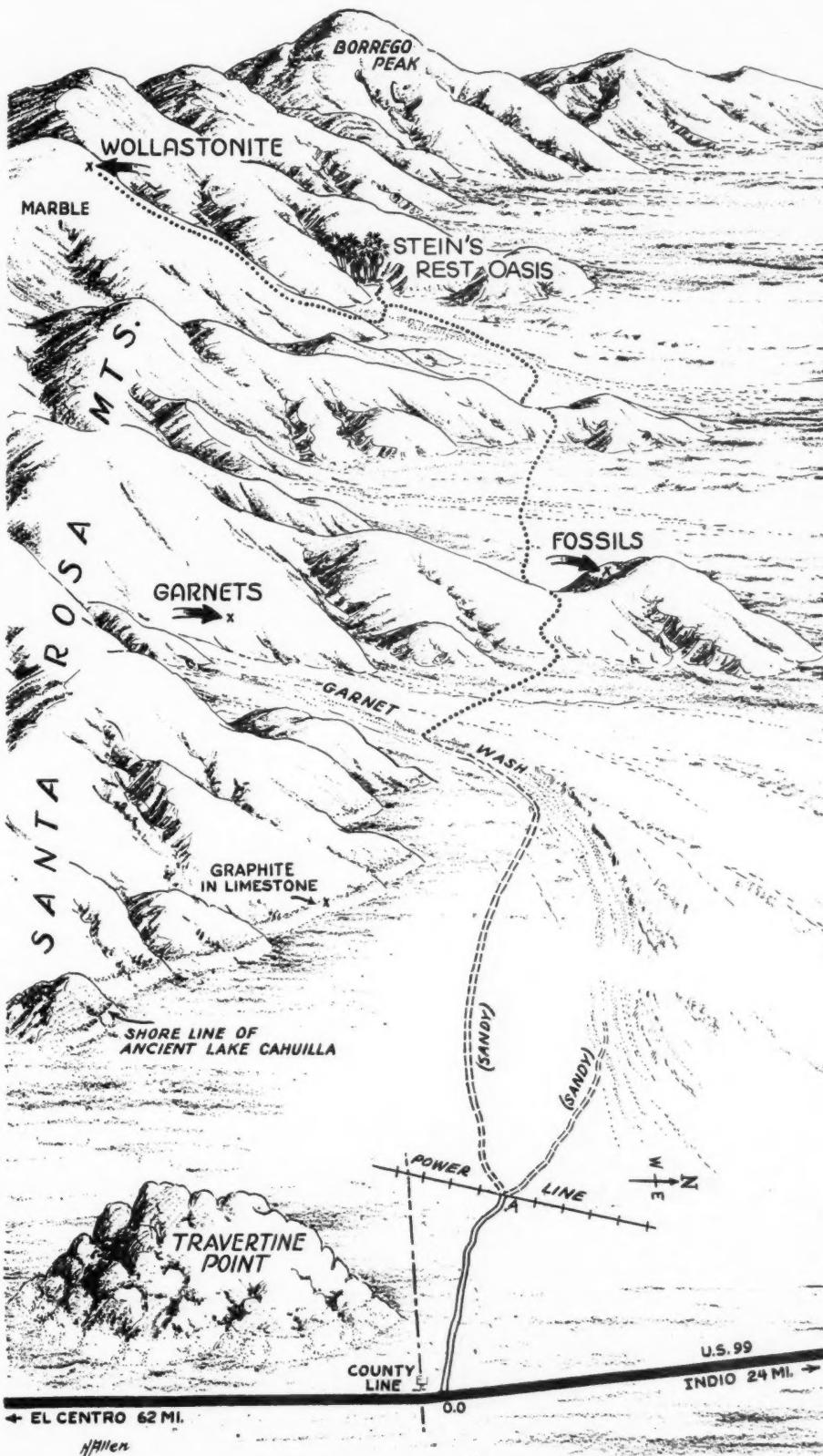
possible to pick up the trail again as it leads to the higher elevations of the Santa Rosas.

Only two of the veteran palms from which Stein gathered seeds are living today. But the seeds he planted evidently sprouted and grew, for there is a second generation of 30-odd palms whose age I estimated at about 50

years. The remaining trees in the oasis are of a still younger generation.

Today the spring has dried up—probably due to the shifting of the fault lines in this area. But there remains an ample supply of underground water, for the palms are green and vigorous.

John Hilton once explored this area





An old Indian trail leads over the Santa Rosa foothills in the background beyond the oasis.

for semi-precious gem material and wrote the story for *Desert Magazine* (January '42). Some of the deposits he found are marked on the accompanying map.

Because of the inaccessibility of this oasis, few visitors ever reach the spot. We estimated the elevation at 200 feet, and from the slope above the palms we could look across to the blue water of Salton Sea, about four miles away. The fire which burned the palms 15 years ago probably had been started by lightning—but flame has not visited the oasis since then, and the dry skirts of the trees planted by Stein now reach the ground.

Charles and I returned along the trail we had come, and found Guy Hazen with several fossil specimens he had collected. He had found the shells of oysters and clams which probably grew here during the late Pleistocene age when this region is believed to have been the floor of an ancient sea—millions of years before Lake Cahuilla or Salton Sea were formed.

I have no doubt that an intensive exploration of this area would yield much of interest to archeologists—for the ancient waterhole at Stein's Rest probably has known the presence of a thousand Indians for every white man who has been there. And since the surface water has disappeared it is unlikely to become the rendezvous for any except an occasional prospector.

But despite its seclusion—or perhaps because of it—Stein's Rest remains one of the most charming little oases on the Southern California desert.

PROSPECTORS LES SPELL, DUDE SANDS WIN PRIZES

Les Spell, 71, of Twentynine Palms, California, and Dude Sands, 59, of the Knott Berry Farm at Buena Park, California, shared winning honors at the Burro-Flapjack contest staged in November in connection with the annual encampment of the Death Valley 49ers. The contest was at Stovepipe Well.

Spell, who won top honors a year ago, was sponsored this year by the Twentynine Palms Realty Board, and with his burro Pinto was awarded first prize for the most authentic prospector's costume and pack. Sands won first place in the Flapjack contest. With his burro Judy he raced 50 yards against five other contestants, built a fire, mixed the batter, and cooked a flapjack and fed it to the burro in seven minutes 25 seconds. Spell finished second.

Charley Mitchell, 59, and his burro Lady, sponsored by Barstow Chamber of Commerce, won second place in the costume and pack contest. Other contestants were: Charley Bishop, 63, sponsored by Surcease Mining Company of Atolia, California, and his burro Blue Boy; Arnold Fryck, 42, with his burro Gravel Gertie of Las Vegas, Nevada, and Ralph Lyle, 39, with his burro Geronimo of Beatty, Nevada.

Winners of the Burro-Flapjack contest were awarded many merchandise prizes offered by commercial concerns in the Southwest. Judges were State Senator Charles Brown, Vern Fairbanks of Shoshone and Archie Dean of Independence, California.

Hard Rock Shorty of Death Valley



"Yep," they's lots o' wild bees in this country," Hard Rock Shorty was saying. His audience was a group of tenderfoot visitors who had arrived at the Inferno store in one of those rubberneck buses.

The visitors wanted to know all about Death Valley—how it got its name, how hot is was in summer, did it ever rain, etc.? One of the visitors, a bee-keeper, asked if there were flowering shrubs enough to attract wild bees.

"Me 'n Pisgah Bill never had to buy no sugar when we wuz workin' Bill's lead mine up in Eight Ball Canyon. Got all our sweet'nin' by robbin' the wild bee cavities up in the Funeral Mountains.

"We got along all right 'til Bill got one of them git-rich-quick idees o' his'n. One day he sez to me, 'Shorty, this is all foolishness—you an' me doin' all this hard work when we could jest as well have them bees workin' fer us.'

"Bill's idea was to gather that wild honey an' sell it. Maybe it wuz a good idea, but Bill figured that if he could get them bees to work 24 hours a day he could make more money. So he sent back east to a friend o' his'n an' had him capture several hundred o' them lightnin' bugs that fly around at night like they had lanterns hung on their tails.

"When the fireflys arrived Bill started cross-breedin' them with the bees—to light 'em up fer night work. Might o' worked all right, but that year the desert wuz covered with them evenin' primroses—yu know that little white flower that grows on the dunes when there is a winter rain. Lots o' honey in them primrose blossoms—but the pesky flowers close up their petals at night. Bill was plumb disgusted when he found the night crew o' bees comin' back without no honey—an' he got mad an' went back to minin'."



Trenching machine of El Paso Natural Gas Company digs into Southwestern soil after trained archeologists have checked the ground for evidence of ancient civilizations and wave the go-ahead.

Bulldozers Followed the Archeologists...

By DOROTHY L. PILLSBURY
Photos courtesy Dr. Jesse Nusbaum

THREE SUMMERS ago, Jesse Nusbaum's mane of iron gray hair practically stood on end. The El Paso Gas Company, he learned, was about to begin a pipe line to the west coast, to connect with Pacific Gas and Electric Company arteries and carry cheap, natural fuel to the San Francisco Bay region. Bulldozers were ready to start digging a trench six feet deep and three feet wide over a 60-foot

right of way from Barker Dome on the New Mexico-Colorado line, 451 miles across northern New Mexico and Arizona to Topock on the Colorado River near Needles, California.

Dr. Nusbaum, senior archeologist for the National Park Service and consulting archeologist for the Department of Interior, shuddered when he considered what would happen. Bulldozers and giant trenchers would be ripping their way through some of the richest yet least explored archeological country in the nation. Unless they

When he heard about the El Paso Gas Company's plan to lay a pipe line across archeologically unexplored Southwestern lands, Dr. Jesse Nusbaum went into action. Applying the Antiquities Act, he gained the cooperation of gas company officials and, preceding bulldozers and trenchers, excavated for artifacts along the pipe line route. Here is the story of a unique project of industry and science which has added much to our understanding of prehistoric man in the Southwest.

were delayed, one of the rarest pages in the life of prehistoric man might be lost forever.

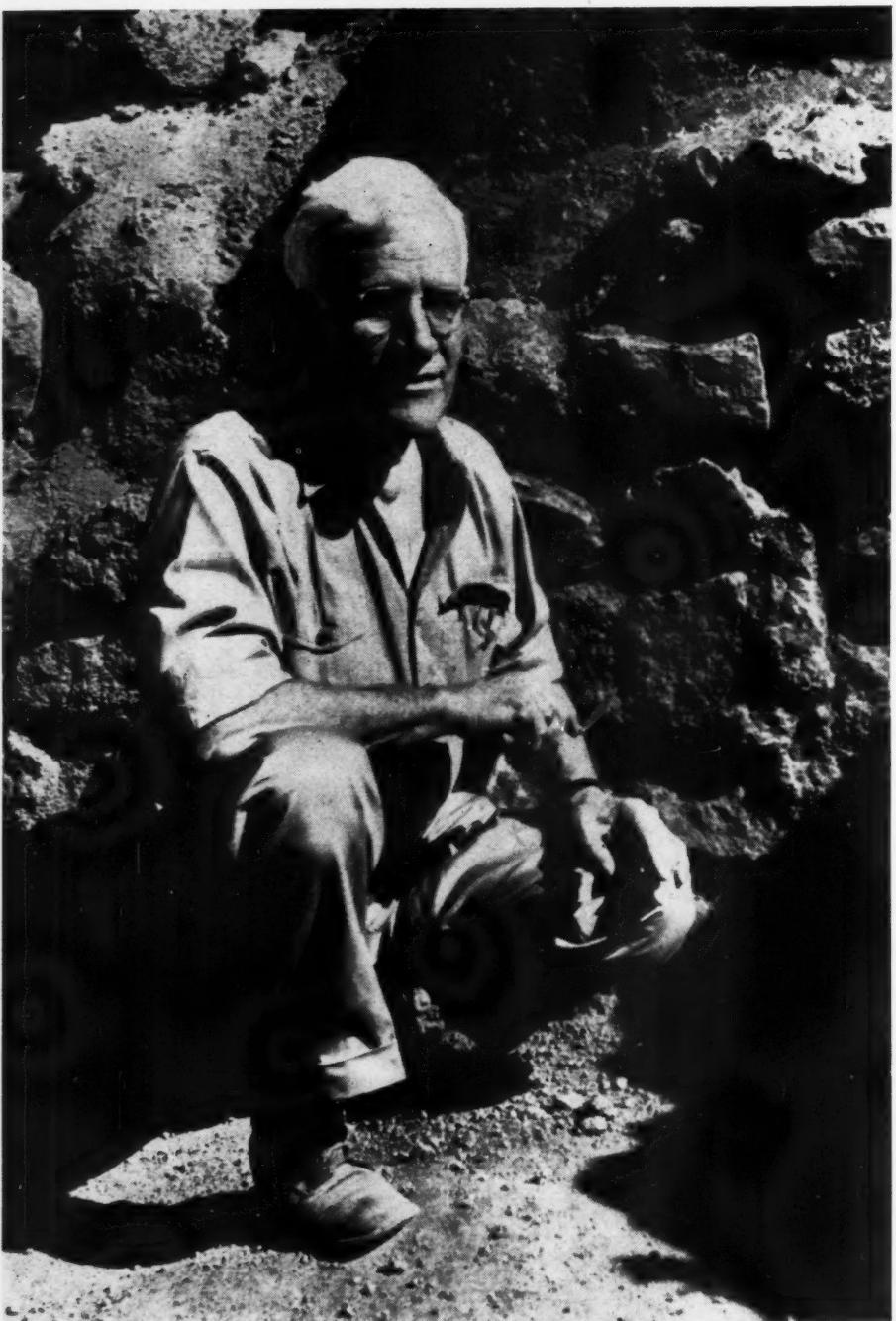
Fortunately, most of the 451-mile right of way led through Navajo country or over other federal lands, so the federal Antiquities Act could be enforced. This 50-year-old law establishes procedure for the investigation,

excavation and collection of natural scientific material by qualified representatives of reputable educational institutions under permits issued by the secretary of the federal department having jurisdiction over the land involved. It was passed to keep the pot-hunters and souvenir faddists from destroying priceless pieces in the jig-saw puzzle of prehistoric history that scientists are slowly and painstakingly fitting together.

Dr. Nusbaum dusted off the Antiquities Act and waved it happily in the faces of some of the country's greatest industrialists.

The officials of the El Paso Gas

Dr. Jesse Nusbaum, director of archeological investigations along the El Paso Gas Company's pipe line route.



Company were annoyed. Millions of dollars were involved in the giant project they were ready to launch. A large portion of their 451-mile right of way led through high altitude country. If they had to hold back their machines and hundreds of workmen while archeologists pattered in their path, dusting off skeletons and digging into buried pit houses, winter snows might trap them in the high country—and that would mean the loss of a tremendous amount of time and money.

But Jesse Nusbaum is a diplomat as well as an ardent archeologist. A simplified method of exploration was adopted, and the route of the machines

was detoured here and there to avoid known or suspected sites. El Paso Gas agreed to pay salaries and maintenance of four qualified archeologists who would work under the direct supervision of a fifth, Dr. Fred Wendorf, and the general supervision of Dr. Nusbaum.

Soon bulldozers weighing 23 to 28 tons were stirring land that, in modern times, had seldom felt the imprint of a human foot. Sun-baked earth was flying. Behind the bulldozers came the 37-ton trenchers. Two crews of 300 men each manned the monster machines or worked beside them. Mobile repair shops, offices and even an air strip were part of operations. But everything — men, Gargantuan machines and other equipment—had to wait under the desert sun until the archeologists, who had been trudging the miles ahead, gave the signal to proceed.

At first, the El Paso officials were annoyed at the delays. But soon the thrill of archeology touched them, too, and they shared the scientists' excitement over each new discovery. When the right of way led through privately owned land, they kept the archeologists on the job and continued their salaries. They provided an airplane for Dr. Nusbaum to make hurried trips to the scene of action and to observe the terrain from the air. When total excavation of a prehistoric site had to be made, they provided men to help with the digging. When the job was finished, they paid for the compilation, study and publication of the recorded material.

The officials of the El Paso Gas Company were not the only ones bitten by the buried treasure bug. Many of the men handling the monster machines became interested. Some of them became so expert that they could recognize a site almost as well as the scientists.

Dr. Nusbaum did not confine himself to flying over the line of march. He was often right down in the excavations, dusting off artifacts and examining the bones of men who roamed this desert land thousands of years ago. Sometimes he walked ten or eleven miles a day ahead of the bulldozers. From one such hot, dust-filled expedition, he returned with a rare artifact. It was a small rounded stone object that fit snugly into a man's palm. Around its edges small teeth had been laboriously formed.

"What is it," he was asked.

"A scraper."

"How old do you think it is?"

"If it is related to the Pinto Lake artifacts," answered the delighted sci-

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entist, "it could be many thousands of years old." Investigation has proved him correct. That little scraper picked up along the right of way of a modern pipe line belongs to the Near-Pinto Lake classification and is probably 7,000 years old. It was finds like this which kept the husky crews of giant modern machinery alert and eager over the long desert miles.

When the last section of pipe had been laid, a total of 146 sites of prehistoric man had been found along the right of way. Fifty-two of those sites were in New Mexico and 94 in Arizona. Only once did the right of way of the pipe line have to be diverted for a major find. Only 13 major sites were fully excavated. On others not so important, notes were taken to be compiled in the total report. Sometimes the site was partially excavated, and if it was seen that the big ditch could run along one side of the ancient wall of an uncovered dwelling or kiva, the archeologists gave the trench diggers and pipe layers the go-ahead signal and returned later for more complete examination.

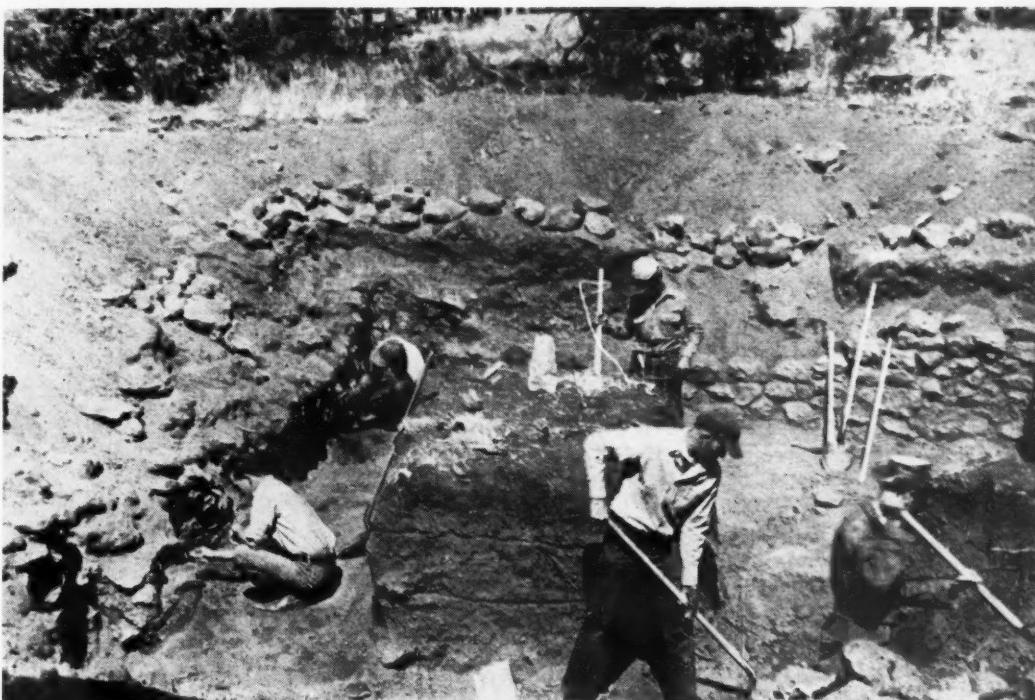
The richest find of all was along Willow Creek, 50 miles from Seligman, Arizona. This was land that had never before known the archeologist's trowel. It yielded 30 structures in ten different sites all dating from 500 to 700 B.C. All along the way, surface artifacts were picked up that dated as far back as 4000 B.C., but not a single structure of this remote time was found.

So, through the cooperation of science and industry, the knowledge of ancient Southwesterners was enriched. Archeologists have long known by conclusive evidence that men have been living in the Southwest for 10,000 years; but there have been gaps in the evidence between that faraway time and the present. The archeologist is the one who fills in the chinks—by piecing together the pattern of those men who lived here centuries before history began—what they looked like, what kind of habitations they had, what they ate, what they made with their hands—and, most important, why they moved on in great migrations. That is the importance of saving such evidence as the pipe line right of way revealed.

Dr. Nusbaum's search also uncovered geological evidence which pointed to severe drouths as the cause for mass migrations of a people who by 1200 A.D. had arrived at a considerable degree of culture. These people lived in many storied, many roomed apartment-like buildings. They cultivated corn, beans and squashes and irrigated them by means of a clever system of water ditches. They were good crafts-



As bulldozers waited . . .



The archeologists dug . . .

. . . For evidence of prehistoric man.





This kiva or ceremonial room of the Pueblo II period was abandoned approximately 900 years ago. It was uncovered in one of the 13 major sites thoroughly excavated by Dr. Nusbaum and his assistants.

men. They wove vegetable fibers expertly and made exquisite pottery which has never been surpassed, even if they did not know the use of the potter's wheel. Most important, they were a settled people and were able to develop a government, a religion and a social life that fully met their needs. Certain vestiges of this Golden Age still persist among many of the Southwest's Indians today, especially among the pueblo people of the Rio Grande country of New Mexico.

Among allotments of natural gas for regional use, five million cubic feet were set aside by the pipe line companies for the use of the Navajos. This caused some chuckles among people who know the Navajo reservation with its scattered hogans. But now, with the discovery of uranium on their arid acres and the possibility that outside interests may erect a uranium processing plant on Navajo land, it begins to look as if those five million cubic feet of gas may come in handy after all.

Another interesting result of this cooperation of industry and science

was the interest of the Department of State. As soon as facts became public, Dr. Nusbaum was asked to furnish pictures of the monster machines and of the archeological findings along their right of way with brief explanations to be published and distributed in many foreign lands where the impression exists that the United States is a land of great industrialists, but that there is little attention paid to some of the less material aspects of national living.

Because of the rich treasure found along the right of way of this first great pipe line through prehistoric Indian country, Dr. Nusbaum is eyeing with anticipation the routes of five other proposed lines originating in Texas and New Mexico to carry natural gas or oil to California, the Pacific Northwest, Nevada and Utah. One of them has already begun. Extending 973 miles from Plains, Texas, to Kingman, Arizona, it is the new project of the El Paso Gas Company.

Scarcely had the machines and men been gathered together to prepare the

right of way for laying of gas pipe line across another tangent of the Southwest when Dr. Nusbaum was called into conference. Soon again, over public lands and private and corporate holdings, archeologists will precede monster bulldozers and trenchers on the pipe line trail. Once again priceless and irreplaceable pages in American history will be saved to piece together the jig-saw puzzle of prehistoric man in the Southwest.

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WESTERN PAINTINGS BY OLAF WIEGHORST

Mrs. Harriet A. Day, director of the Desert Magazine Art Gallery, announces a special exhibit of 30 Western paintings by Olaf Wieghorst, January 31 to February 15. Wieghorst, one of California's leading Western artists, is especially famous for his horses and corral scenes. The gallery is located in the foyer of the Desert Magazine Pueblo, on Highway 111 in Palm Desert, California, and is open daily from 9 a.m. to 5 p.m.



Hopi leather craftsmen, Everett Towahongeva and Gray Lomayma, who have found profitable employment making Squaw Boots for the white trade.

Photo by Mildred Clouse

Ancient Leather Craft Revived

WHEN WHITE MEN first came to the Southwest they found the Navajos, Zunis, Hopis and many other tribesmen wearing a soft buckskin type of ankle-high moccasin that represented very fine craft work in leather.

In recent years, as the white man's footgear became available for the tribesmen, those who could afford to do so have gradually been adopting the factory-made shoes — except on ceremonial occasions when the Indians almost invariably revert to the traditional attire of their forebears.

The craft of making their own footgear might eventually have vanished from many of the tribes had it not been for the interest of traders and dealers in Indian goods who saw the commercial possibilities of the Indian boots.

The Indians in limited areas were encouraged to make these shoes for the market, and their product has been widely advertised under the name of "Squaw Boots." They are finding ever-increasing popularity for home wear because of their trim snug-fitting appearance and extreme comfort.

Most of the boots made today find

use in one of three categories: (1) for their own family use (they are worn by men, women and children), (2) for barter to traders and dealers in Indian goods, and (3) for their own ceremonial purposes.

The authentic Navajo squaw boot is truly a masterpiece of Indian craftsmanship. The sole, which curls up slightly around the foot, is made of durable hand-moulded rawhide, the uppers of soft, tanned buckskin—the two being invisibly hand stitched to-

gether on the inside of the boot. This stitching is functional as well as unique — no threads are exposed to be caught and torn on rough desert vegetation. And the stitching is so close and fine not a grain of sand can work its way into the inside of the boot to chafe the foot of the wearer. Soft and pliable, the boot is fashioned in such manner it fits snugly around the ankle and across the top of the foot—thus giving some arch support from above rather than from below.

The Hopis, hardy independent people whose home is on the mesas of northern Arizona, are known to be the world's greatest runners. There are accounts of Hopi young men who have run over a hundred miles without stopping. Is it possible the boots they wore had anything to do with these remarkable feats? More likely the answer resides in the vigorous, durable nature of the Hopis themselves—and yet the Hopis wear one form of the squaw boot.

Ideally suited for desert wear, the squaw boot has a shape and character of its own, totally unlike the low, flat moccasin of the plains or eastern American Indian.



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AN OLD TIMER SHEDS NEW LIGHT ON A FAMOUS LOST LODE

The Lost Dutchman Mine...

By MARY L. BAGWELL

STARK AND mysterious, the Superstition Mountain range rises abruptly from a wide and sparsely vegetated desert mesa 36 miles northeast of Phoenix, Arizona—a monument to the countless prospectors, adventurers and lost mine seekers who, seeking Jacob Walzer's Lost Dutchman gold, have found only death in its perilous canyons.

Low clouds hung like a shroud over the summits as I neared the range, traveling east from Phoenix on Highway 60. Giant saguaros covered the landscape, sharing ground with mesquite, prickly pear and cholla. Nearing Superior, the highway crosses and recrosses winding Queen Creek's swift waters, rushing downward from its source in the Pinal Mountains.

Five miles west of Superior I turned onto an unpaved country road and bumped westward for ten miles or so to a small house almost hidden by dense undergrowth of cactus, catsclaw, mesquite and paloverde.

This is the home of Herman Petrasch which he built in 1934 from handhewn local timber and scraps of material. Herman is 88 years old, a native of Germany and the brother of Rinehart Petrasch who was a close friend of Jacob Walzer for many years before the Dutchman's death.

Inside Herman's house the walls are lined with shelves of souvenir magazines and weather-yellowed books. A low wood burning cook stove squats in one corner against a background of well scrubbed pots and pans. A single bed with sturdy canvas cover, a coal oil lamp, an extra shirt and overalls hanging from nails in the wall, a table that serves as both desk and dining board, two straight chairs and a pair of rockers complete the one room's furnishings. One of the straight chairs supports two double-barreled shotguns protected from dust and insects by tin cans placed over the muzzles. Everything in the room is neat, orderly and convenient.

This is home to Herman Petrasch—a minimum of material comforts with bonus quantities of peace and solitude and fresh mountain air. Visits from close friends, letters, current magazines and several hobbies provide him with ample entertainment. Often he just sits outside his humble home, viewing

"Stuff and Nonsense," old-timer Herman Petrasch calls most of the stories he's read about the Lost Dutchman Mine. Jacob Walzer's fabulously rich gold ledge in the Superstition Mountains of Arizona. For Petrasch claims to know the real story, as he heard it from his brother, Rinehart Petrasch, a close friend of Walzer. Here are new clues for the lost mine seeker—and a warning to all who challenge "the curse of the Superstitions."

the surrounding country and recalling the many memories it holds for him. He has lived in the Superstition country for 60 years.

Herman came to Arizona in 1892 to help his brother look for the Old Jake Mine, as the Lost Dutchman was called at that time. Each of us settled comfortably in a rocker, he told me the story.

"My brother had come to Arizona seven years before Jacob Walzer's death—and his name was Walzer, W-a-l-z-e-r, not 'Waltz' or 'Walz' as many people insist," Herman pointed out—"and obtained work in Walzer's bakery in Phoenix. At that time the Dutchman lived in an adobe building in South Phoenix, near the Salt River where he owned several acres of land.

"In the spring of 1891, the Salt flooded, and Walzer's home was almost completely swept away. He climbed a fruit tree and saved himself from drowning, but when found he was partially paralyzed and suffering from exposure and shock. The ordeal was too much for an old man of 82 years, and he died six months later, October 8, 1891. Rinehart buried him, for during the years of their association they had become close friends. Walzer's body still lies in the old Phoenix cemetery, in a plot now marked 'Lot 19, Grave No. 4.' Not many years later my brother was buried beside him.

"It was late in the fall of 1891 that Rinehart wrote to me about Walzer's death and asked me to come to Arizona to help him search for the rich mine Jacob had found in the Superstition Mountains.

"I arrived in the early part of 1892, and for some time we searched the Superstitions for the lost gold ledge.

However, with a family to support I soon was forced to find steady employment. I obtained a job with the Reavis Ranch, originally owned by E. A. Reavis and situated about 25 miles from Jacob Walzer's claim. Some say Reavis and the Dutchman were close friends. He raised vegetables and fruit and peddled them to all the little mining communities in the early days.

"On one trip to Florence, Reavis was ambushed and murdered. After his death, Jack Frazier became owner of the properties. Will Knight was his foreman and I worked for him. Later owners were Mark Twain Clemens, Jim 'Tex' Barkley, Bill Martin and Huly Bacon. I stayed on and knew all these men.

"Jacob Walzer was a native of Germany," Herman recalled, "and a sober man of good character, contrary to many legends. Although he did keep wine in his cellar and offered it to friends when they visited him, he refused to drink himself.

"Almost immediately after arriving in the United States, Walzer had come to Arizona. A business man, he spent his spare time prospecting for gold. He and a friend, Jacob Wiser, went on frequent journeys together into the Superstitions. However, no one knew they had found a mine until he told my brother and Mrs. Julia Thomas, Walzer's octaroon housekeeper, a short time before his death.

"The mine, which Walzer called the 'Placer,' was discovered in 1869. On one of their trips, he and Wiser had camped near a good spring not far from the base of what is now called Weaver's Needle, a sharp isolated peak in this range of mountains. From their camp they could walk to the Placer and to the 'Quartz,' a second mine about a mile farther.

"The Placer was discovered as they walked through the canyon along the bed of a creek where soil erosion had exposed a ledge of almost pure gold about 20 inches wide.

"This rare and spectacular find they mined by making an excavation on a gradual incline four inches wider on each side than the deposit of ore. It was just wide enough to work in and not too hard to conceal when they made a trip into Phoenix, Florence or Globe to dispose of a small amount of ore. Walzer was afraid to carry too

much gold on any one trip, and, as he never craved wealth, his wants were simple and easily satisfied.

"The Quartz was discovered later. While working on the Placer one day, the two men heard sounds of rocks being broken. They investigated and found two Spaniards working an old mine which proved equal in richness to the Placer. From the Spaniards they learned that there were eight Spanish mines in the near vicinity. Later the Spaniards were found slain and Wiser and Walzer buried them at the murder site.

"This occurred in 1882. Walzer and his partner did not work the Quartz, as its hidden entrance afforded no look-out opportunity and was therefore dangerously vulnerable to surprise attack. They carefully concealed its location and returned to work the Placer.

"Sometime during their many trips into the mountains the partners built a native wood and adobe hut near the spring. It undoubtedly fell into ruin long ago, but its pile of rubble probably provides a good landmark to the lost mine area."

I asked Herman if he ever had felt he was close to the Placer.

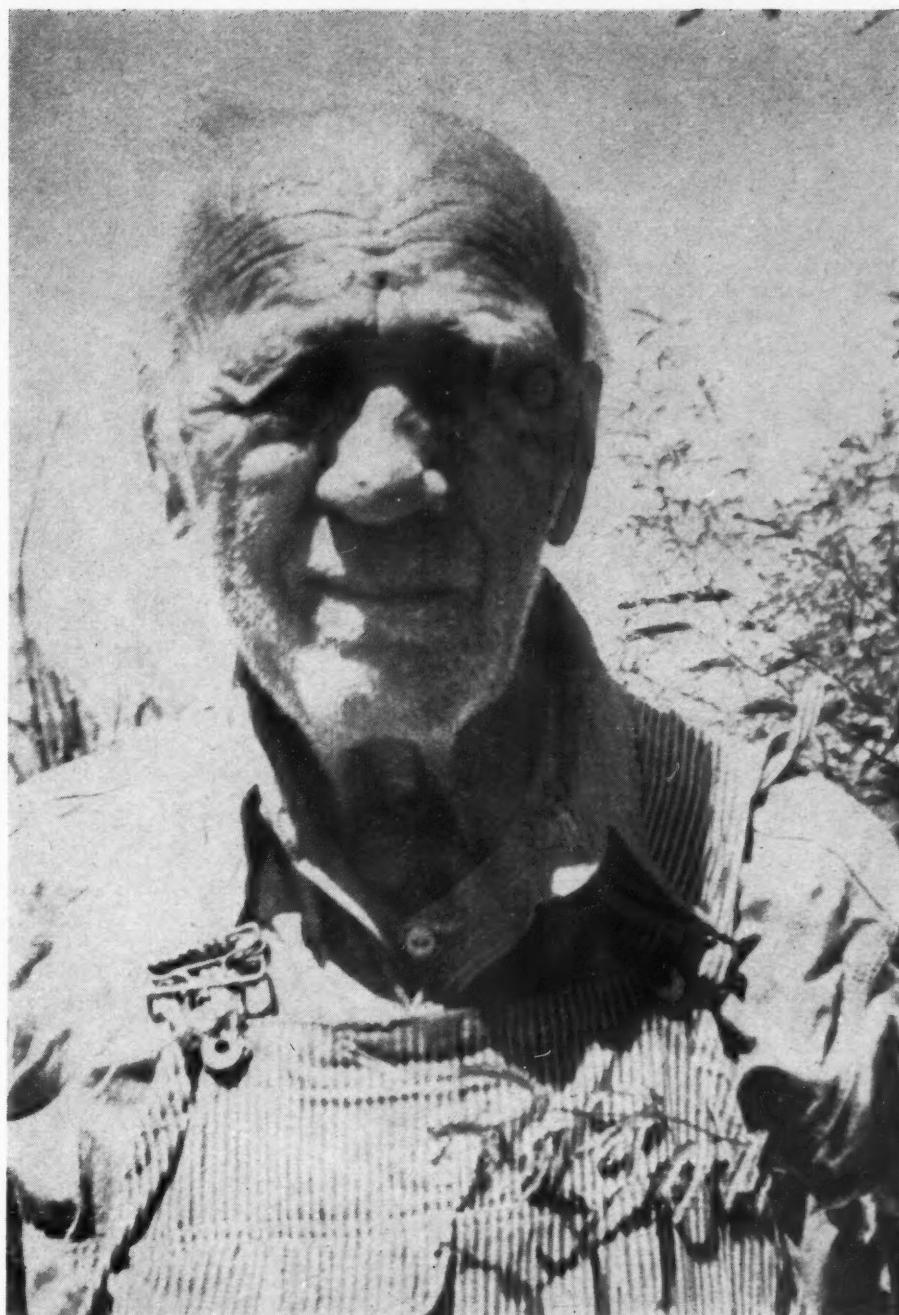
He shook his head. "Many people have gone into the Superstitions to look for the Lost Dutchman Mine," he said, "and their greed has cost them their lives. I have done a little searching, yes, but I'm afraid to look too far. I believe the mines are not meant to be found."

"There's a curse on the gold," Herman continued. "I am not a superstitious man—except in regard to these mountains. There is a curse on those mountain slopes and canyon walls, a curse which has existed since early territorial days when the Spaniards and Indians first started to quarrel. Many fierce battles—notably the massacre at Walnut Canyon—have been fought between white men and red in these mountains—and the reason for most of the bloodshed was gold."

Herman got up from his chair and crossed to his front door. He pointed to the north. "Straight north of here—over there," he indicated, "is Iron Mountain; a little west is White Mountain. There are two old Spanish mines there, making ten that I know of in the Superstitions."

Selecting a book from the crowded shelves, he thumbed through to *The Legend of the Lost Dutchman Mine*. "There's very little truth in this," he laughed. "Mostly stuff and nonsense."

"About two years ago, Clayton L.



Herman Petrasch has lived in Arizona's Superstition Mountain country for 60 of his 88 years. His brother, Rinehart Petrasch, was a close friend of Jacob Walzer whose Lost Dutchman Mine is believed to lie near Weaver's Needle in the Superstitions.

Worst of Fairview, Montana—a 'historical field explorer' he called himself—told me that there had been more than a thousand different stories told about the Lost Dutchman Mine. Most are ridiculous, of course; but the facts I gave him compared favorably, he said, with those he'd obtained years ago from a native of Old Mexico. The Mexican man had remained in the Territory of Arizona for many years after the battle of Walnut Canyon, and he was able to relate with accuracy much of the early history of the state.

"Several people have come to me for the story of the Lost Dutchman, but they never write down what I say as you have done. You have the facts as they were given me by my brother — and Rinehart learned them from Jacob Walzer himself. Maybe this story will bring others to these mountains to look for the lost gold ledge. I wish them luck. And if wealth can bring them happiness, I hope they can conquer the curse of the Superstitions and find the riches which have lain hidden so long."



General view of the ghost town of DeLamar, Nevada, looking north from Nob Hill toward the Meadow Valley range.

Golden Ghost of the Nevada Hills

Dust devils still play on the abandoned tailing dumps of DeLamar, Nevada, swirling the silica dust which during boom days gave the gold camp the epithet, "man-killer." Frank and Vilate Pace lived in DeLamar during its heyday and they remember the mines running at capacity, the beautiful homes on Nob Hill, Shaefer's Grand Opera House and the terrible fire of 1900. Telling the Paces' story, Nell Murbarger recalls the past of another ghost town of the Southwest.

By NELL MURBARGER
Photos by the Author
Map by Norton Allen

THE DAY was a scorcher. Since early morning July's sun had been beating down on the dry hills of Southern Nevada. Even the cottonwoods along Caliente's main street seemed gripped in a strange lethargy, their yellowing dust-powdered leaves hanging motionless in the dead air.

With a final glance at my penciled directions, I drove on past the town hall, made a sharp turn and climbed a short hill. There, at the head of the street, stood the big gray house I had come more than 200 miles to find. In that house, according to information I had been given, lived Mr. and Mrs. Frank Pace—two of the few persons living who had shared in the gold boom days at DeLamar, Nevada, more than half a century ago.

I knocked on the door, and almost before I had a chance to introduce myself I was seated in the pleasant living room with a refreshing glass of ice water, and my hosts and I were talking as if we had been friends for half a lifetime.

After explaining my interest in ghost towns — and especially in the ghost town of DeLamar—I asked if it would be possible for either of the Paces to accompany me there, not only to show me the road but to guide me about the place.

"Yes indeed," Frank Pace nodded affably. "I never pass up a chance to go to DeLamar. How 'bout you, Mother—want to take a ride out to the old camp?"

For answer, Vilate Pace began removing her apron and hunting a scarf to tie over her head.

Leaving Caliente on U.S. 93, we soon passed the four-mile side road to beautiful Kershaw Canyon State Park and started up a long ravine that cuts through the southern tip of the Highland range. Skirting a colorfully-banded cliff on our right, we

climbed through the narrow winding canyon for nearly five miles before emerging on a high plateau sprinkled thinly with junipers, mountain mahogany and rabbit bush. About ten miles west of town, we topped the summit of Oak Springs Pass, 6250 feet above sea level. We had climbed more than 1800 feet since leaving Caliente, and the temperature had grown noticeably cooler.

Continuing toward the west, we dropped into a forest of Joshua trees. Growing on this high, dry plateau, these prickly members of the yucca clan are quite different in appearance from the fine big Joshuas that fringe the road across the border near Victorville, California. Here, at the extreme northern limit of their range, the trees are small and scrubby, with abbreviated trunks and short leaves—a difference botanists have recognized by setting this type apart in a sub-variety known as *Yucca brevifolia* var. *jaegeriana*, honoring the naturalist, Edmund C. Jaeger, who first described them.

Stretching away to the north of our road lay the sullen white vastness of Dry Lake Valley, where tall dust twisters moved endlessly across the flat. Bordering the valley on the west was the long hot line of the barren Pahrrokks, gaunt-ribbed and hostile.

There was not a building, a fence, or a domestic animal as far as the eye could reach. Twentieth century progress had entered the land, it was true, but only to the extent of the paved road we were traveling and the tall steel standards of the power line. Emerging endlessly from the south and disappearing into the north, these silvery giants and their looping cables provide an electric bridge between the great turbines of Hoover Dam and the mines and mills of Pioche.

After passing under the power line, Frank indicated a left turn on a dusty desert road that soon angled back to the line and headed south, following the power standards. Our way continued through the Joshua forest. Creosote bushes also had made their appearance. Here and there were plants of cane cactus, and occasionally the tissue-paper blooms of a thistle poppy appeared in the dust alongside the road.

Numerous trails branched from the road on either side, and Frank peered toward the distant hills as though in search of some landmark. Five and one-half miles south of the highway he indicated another left turn, and we headed southeast on a long straight road, a single lane's width and pocked with chuckholes.

Suddenly the old DeLamar cemetery appeared on our right—a few granite



Ruins of bank and assay office at DeLamar, Nevada.

and marble slabs, a few old iron railings and many wooden headboards all enclosed within the sagging strands of a barbed-wire fence.

Directly across the road from the graveyard was a caving foundation and a cellar.

"That was 'Old Man' Nelson's toll station," said Mrs. Pace. "For the first several years after the strike at DeLamar, the only way a vehicle could get into camp was the long way around over a terrible road. We thought it was pretty fine when this toll road made it possible for us to drive right over the hill into town."

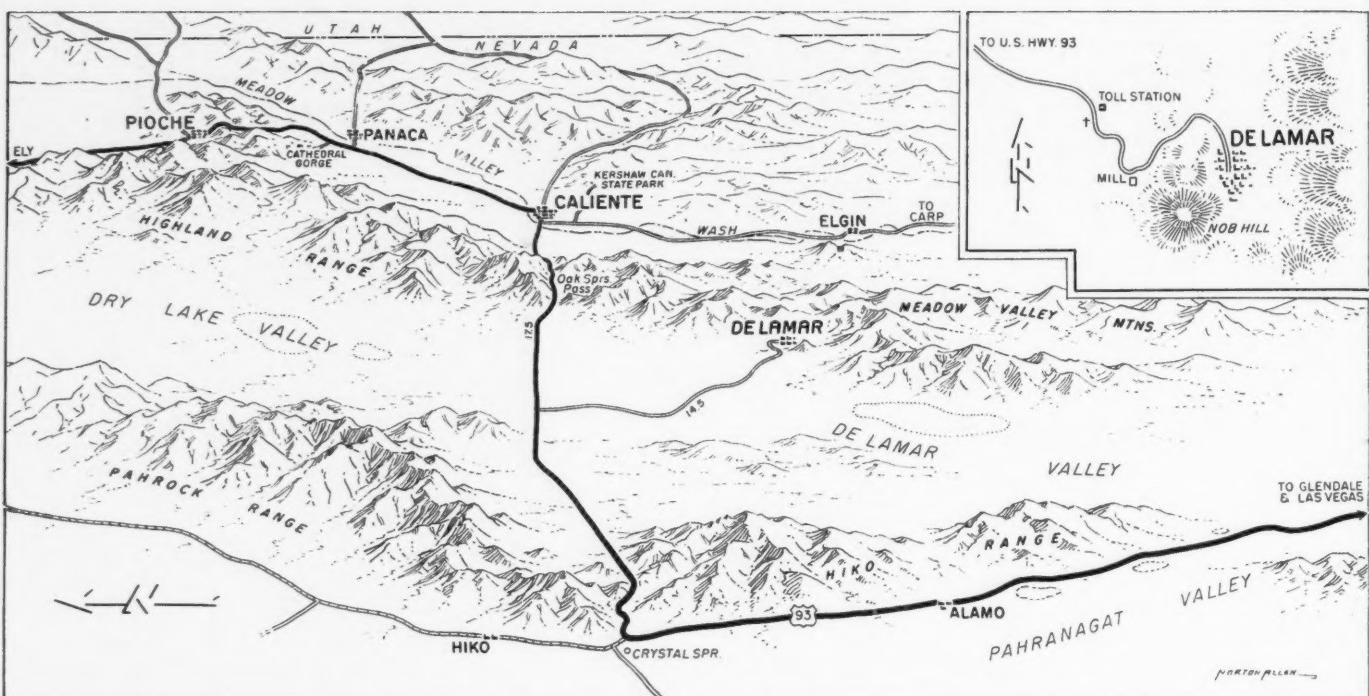
"Mr. Nelson charged only 25 cents for each rig, but sometimes drivers would try to sneak by the station without paying," she laughed. "The old man kept a shotgun handy, and folks used to say he would chase a rig halfway to DeLamar to collect his toll."

But many years had passed since Mr. Nelson collected his last fee, and without any fear of shotgun reprisal

we continued on up the hill on the old toll road which wound around the mountain like a thin strangling vine.

Nearing the summit of the grade, I let the car coast to a stop. Ahead of us, possibly a mile, rose the bare west wall of the Meadow Valley range; and down in the swale between that escarpment and our point of vantage was spread the disintegrating skeleton of DeLamar — once the greatest gold-producing camp in this part of the state.

Directly at our feet lay the stark black timbers of the DeLamar mill with its mountains of creamy-white tailings spilling away below. To the south and west lay the Hiko range and the broad flatness of DeLamar Valley and the Pahranagat, early day hide-out of cattle rustler and fugitive. Over this wide dry expanse to the south had crossed the Manly party of 1849, en route to Death Valley and the hardships and tragedy it held in store.



Frank drew my attention to the tailing dumps. Where we were standing on the old road, the lazy July wind was scarcely strong enough to stir the leaves of the creosotes, yet there was rising from the tailing piles a fantastic spiral of dust, as dense and white as sea fog. Mounting into the sky, this dust column eventually met with a heavier current of air, flattened against it and slowly disintegrated into nothingness.

"That dust," said Frank, "is Cambrian quartzite — more than 80 percent silica. With this little breeze having that effect on the packed tailings, you can imagine what it was like when all the mines and mills were operating at capacity! No wonder the camp was known as a man-killer!"

"Most of the work," he continued, "was done by farm boys who came over from the Mormon settlements in southwestern Utah. They had never even heard of silicosis—but after three or four months in the mines and mill at DeLamar, they would start coughing. Some died in a few weeks; others hung on for years—too sick to work, too stubborn to die."

"The air was so impregnated with silica dust that even women and children who never went near the mines or mills would occasionally contract silicosis. Even horses eventually died from the dust."

The original strike at DeLamar, said Frank, had been made in 1892. About a year later, several of the leading claims had been purchased for \$150,000 by Capt. John De La Mar, a prominent promoter and developer of that day. Laid out soon afterward, the town had been given an Ameri-

canized version of the French name and had built up rapidly. Most of its original settlers and merchants had emigrated from Pioche, and many of DeLamar's first buildings had been moved intact from the older town.

In 1895, Capt. De La Mar had installed a barrel chlorination plant. After passing dry through a coarse crusher, the ore had been carried to Griffin mills, of which there were 13 in number. It was this method of dry handling that had given rise to the terrific mortality rate.

Little was done to improve the situation until about 1900 when Simon Bamberger of Salt Lake City bought the De La Mar property, piped water from Meadow Valley and changed the milling process from chlorination to cyanide.

"The introduction of wet milling eliminated a lot of the dust," said Frank. "But it was still terrible!"

Coasting on down the grade into town, I soon learned that I might have searched the world over without finding two better qualified guides. Even in its present state of chaos, the Paces were thoroughly at home in DeLamar.

This big stone ruin, they would explain, had been Roeder's general store. The McNamee dance hall had stood on this lot; the Oddfellows and Masonic hall had been over there; the hospital, across the ravine.

"That knoll," said Vilate, indicating a low brown hill at the south edge of town, "was called Nob Hill. It was completely covered with homes—some of the grandest places in town!" The hill she indicated was bare and rocky. Scarring its surface were many old stone foundations, a few prospect

holes, a few Joshua trees—but not one wall was standing intact.

"I was just a school girl when I came to DeLamar," Vilate Pace was saying. "I had been born at Panaca, a little Mormon town about 40 miles from here. There were 14 of us in the family, and after our father and mother died in their early forties, we youngsters had to shift for ourselves. There weren't many opportunities to make money at Panaca, but the boom was getting underway at DeLamar. When my older brothers heard they could earn three dollars a day in the mines, it seemed almost too good to be true! My older sisters thought they, also, might be able to get work, and I tagged along."

"I had never been away from home. The day we boarded the stagecoach for DeLamar, I couldn't have been more excited if we had been starting around the world!"

"It was long after dark when we caught our first sight of town," she continued. "All this flat was covered with homes and shops, and the whole place was ablaze with bright lights. I thought I had never seen anything so beautiful or wonderful in my whole life. And then, when I saw the fine, big stores all filled with gorgeous dresses and hats, and hair-ribbons and jewelry—I simply had to pinch myself to make sure I wasn't dreaming!"

"At that time," she went on, "DeLamar was the largest city in Southern Nevada, and we had lots of good times. The Atkins orchestra played for dances almost every week. The town band gave free concerts, and traveling show companies played at Max Shaefer's Grand Opera House. The Shaefer

Grand was a splendid building. It had cost \$10,000 to build and was considered the finest theater in Southern Nevada.

"Our greatest lack was water. Even after it was pumped over the range from Meadow Valley, it still had to be hauled from the end of the pipeline to the houses and cost us 50 cents a barrel."

"I had been at DeLamar two months when the big fire struck in 1900," recalled Vilate Pace. "It was late in the afternoon of May 29 when the fire broke out in a lean-to on Edwards' saloon. It had been very hot and dry for weeks. Everything was like tinder, and in a matter of moments, buildings on both sides of the saloon were ablaze. After that, there was no stopping it. We were living on Nob Hill at that time, and could see all over town from our front porch.

"I can remember how horrified we were as we watched the Shaefer Grand burn to the ground. From there, the fire swept on through main street, leveling one business building after another. The whole flat soon was a rolling sea of flame and smoke."

"The fire department finally resorted to dynamiting buildings in the path of the fire. They eventually got it under control—but not until most of the business section lay in ruins and hundreds of persons were homeless. Armed guards patrolled the streets all night to guard against looting."

"And that," put in Frank, "was how I found things when I arrived in DeLamar for the first time!"

Shortly after the camp opened, two of Frank's elder brothers had left the family home at St. George, Utah, to enter the mercantile business at DeLamar. By the spring of 1900, business was booming in the new camp and they had written home that Frank could go to work for Henry W. Miles of the DeLamar Mercantile company.

"I was only 15 years old, and the idea of having an important job in a rip-roaring mining camp really thrilled me," laughed Frank. "I think I imagined six-shooters popping on every corner and dead men lying in the street."

"But when I stepped off the stagecoach at DeLamar," he grinned, "all I found was charcoal and wreckage!"

Almost before the embers had cooled, however, the work of rebuilding had begun. By 1901, the town was largely restored to its former glory.

Beginning of the new century had found DeLamar the leading gold producing camp in Nevada. Handling around 400 tons of ore daily, the De-



Mr. and Mrs. Frank Pace of Caliente, Nevada, were among the early settlers at DeLamar, and they have many memories of the ghost camp's boom days.

Lamar mill was turning out from \$100,000 to \$200,000 in bullion each month. The April Fool mill also was operating at this time, and around 400 men were employed in the mines.

"Whenever the mill shipped bullion, the stage would go out loaded with shotgun guards and presumably carrying a fortune in gold, but this was just a blind," said Vilate. "The bullion actually went out in an ordinary freight wagon without even a guard!"

Frank and Vilate met soon after his arrival at DeLamar, and it was not long until they decided to be married. As they were only 17 years of age, it was necessary for both to have the consent of legal guardians.

"When we asked our families about it," said Mrs. Pace, "they didn't even take us seriously enough to act shocked. They just laughed at us! But by 1906 we were old enough to marry without asking permission of anyone

—and we didn't lose any time doing it!"

By 1906, however, the mines were beginning to close, and DeLamar had seen its best days. Many of the miners left to join the new excitement at Goldfield. The newly-wed Paces decided to follow the crowd.

With their departure from DeLamar, the Paces quickly succumbed to the glamour and excitement of the boom camps. They were living at Goldfield when they heard that DeLamar had given its last gasp and died.

In September, 1909, after the camp was credited officially with the production of \$25,000,000 in gold, and unofficial "estimates" of production ran as high as \$80,000,000, the last mine had closed. The mills had ground to a stop, and the power plant in Meadow Valley, across the range, had shut off its generators. As a final dramatic touch, the mine and mill

whistles had been tied down and permitted to blow until the last spark of power had been exhausted.

Three years later, free-spending Goldfield suffered virtually the same fate. The Paces had drifted on to Tonopah and, eventually, to California, where their one son was born. But their hearts were too deeply rooted in Nevada's highland desert to be happy any other place, and in 1913 they returned to Lincoln county and established themselves in the big house at Caliente. And there they have remained for 45 years.

"What about that treasure that's supposed to be buried at DeLamar?" I inquired.

"Treasure?" repeated Frank. "What treasure?"

"Why, an old timer at Pioche was telling me about it," I answered. "He said that in the early days one of the local mine officials had connived with an assayer and they had high-graded a lot of company bullion — around \$70,000 worth. This official buried the loot, and then he died before he

could reclaim the bullion and make his getaway."

"Folks have been telling various versions of that story for almost 50 years," Frank said. "Hundreds of men have hunted for the bullion. They've searched the whole area with doodlebugs and metal detectors and every contrivance under the sun—but the bullion's still lost! One old man swore he knew where it was buried. Several times he was right on the point of showing me the spot. But he never quite did it—and now, he's dead too."

Pausing, Frank Pace let his gaze wander over the crumbling ruins of DeLamar and on to the Southwest, where mountain-hemmed valleys were now brimming with the purple haze of evening.

"Y'know," he continued, "that old fellow dropped some powerfully strong hints, and I've always had a sneaking idea I know where that gold is buried. Sometime—when it's a little cooler—" he winked at Vilate—"I think I may come back to DeLamar and do a little prospecting!"

TRUE OR FALSE

lore of the Desert country to get a perfect score in this quiz. If you don't know all the answers, this is a good place to learn some of them. And anyway, there are no penalties for getting a poor grade in this school of the desert. The answers are on page 40.

- 1—A rattlesnake cannot strike without first coiling. True _____. False _____.
- 2—Lowest elevation in the United States is at the foot of Bright Angel Trail in Grand Canyon. True _____. False _____.
- 3—The present Salton Sea in the Colorado desert of California is less than 50 years old. True _____. False _____.
- 4—Hoover dam is located in Boulder Canyon. True _____. False _____.
- 5—Gold ore is always yellow. True _____. False _____.
- 6—Sunset Crater, in northern Arizona, was active within the memory of Indians now living. True _____. False _____.
- 7—The Pueblo Indians of New Mexico fire their pottery in oven-like kilns especially built for the purpose. True _____. False _____.
- 8—A north and south line through El Paso, Texas, would be west of Santa Fe, New Mexico.
- 9—The goat nut or jojoba is a perennial shrub. True _____. False _____.
- 10—150 pounds is not an excessive load for the average burro to carry. True _____. False _____.
- 11—Diamond is the hardest of all the precious gems. True _____. False _____.
- 12—*Stopes* is a term used in mining. True _____. False _____.
- 13—The Gila Monster is a native of California. True _____. False _____.
- 14—Scotty's Castle in Death Valley was financed with gold from Death Valley Scotty's mines. True _____. False _____.
- 15—The Mormons migrated to Utah under the personal leadership of the founder of their church, Joseph Smith. True _____. False _____.
- 16—The territory involved in the Gadsden Purchase was acquired from Mexico. True _____. False _____.
- 17—Lee's Ferry on the Colorado River in northern Arizona is still in operation. True _____. False _____.
- 18—The book, *Gold, Guns and Ghost Towns*, was written by W. A. Chalfant. True _____. False _____.
- 19—*Camino* is a Spanish word meaning mountain. True _____. False _____.
- 20—A Jackrabbit Homestead generally is five acres. True _____. False _____.

THE DESERT MAGAZINE CLOSE-UPS

So far Rae Von Dornum has a perfect sales record in the magazine writing field. Her first story, "The Curse of Kehama," won an honorable mention in *Desert Magazine's* Life-on-the-Desert contest. It appears in this issue.

Though a newcomer to the magazine field, Miss Von Dornum has been actively engaged in other writing. She is a weekly columnist for the *Henderson Home News*, which also serves her present home town of Pittman, Nevada, and she long has dabbled in poetry as a hobby.

Other hobbies are represented by her collections of mineral specimens and sun-colored glass. Previous residence in the history-rich mining towns of Tonopah, Goldfield and Beatty gave her an interest in mining, and she enjoys frequent rockhunting trips.

• • •

Freida Walbrecht is an old hand at making hikes like the one she describes in her story, "Through 'The Narrows' to Zion," in this issue of *Desert Magazine*.

Miss Walbrecht was the first woman to climb all 15 of the 14,000-foot mountain peaks on the Pacific Coast, and she is one of the two persons (Sam Fink was the first) to climb all of the 192 named Southern California mountains over 5000 feet.

Whenever she can leave her Los Angeles law practice for a weekend, Attorney Walbrecht takes a trip to mountains or desert. She is an active member of the Southern California Sierra Club and helped organize the group's Desert Peaks Section.

Interviewing old-timers for a story she planned to contribute to a local Sunday supplement, Mary Bagwell met Herman Petrasch and heard his story of the Lost Dutchman Mine. She repeats the old man's version of the famous lost lode in this issue of *Desert Magazine*.

Mrs. Bagwell was born a half century ago on her parents' farm in Van-Zandt County, Texas, the tenth of 14 children. When she was 18, she married J. O. Bagwell, son of a farm neighbor, and three years later they moved to Superior, Arizona, where her husband has been an electrician for Magma Copper Company for 25 years.

Her own four children grown and established in homes of their own, Mrs. Bagwell became active in youth welfare work and personally supervises a group of 4-H girls.

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MINES and MINING

Washington, D. C. . .

The United States will double production of uranium ore in this nation within two to three years, Jesse C. Johnson, manager of the Raw Materials Operation, Atomic Energy Commission, told a Senate subcommittee seeking to determine the mineral self-sufficiency of the nation in time of war. Johnson said that the U. S. already has increased its uranium production about four times since World War II, and more than 525 producers on the Colorado Plateau are shipping ore to nine uranium mills. However, with the high target goals that have been set for the Atomic Energy Commission, "we will need all the uranium we can get from both domestic and foreign sources," he said.—*Salt Lake Tribune*.

Bishop, California . . .

Contact Development Company has introduced a new method of treating tungsten ores in the Bishop region. The company moves its portable mill, mounted on skids, to various deposits to concentrate ores. Use of such mobile plants is expected to spread rapidly to other tungsten areas, as the portable units make possible treatment of ore from small deposits where scheelite is not sufficiently rich to warrant shipment to custom plants.—*Mining Record*.

Moab, Utah . . .

The known deposit of rich ore on Charlie Steen's uranium discovery on the Colorado Plateau was widened in November when core drilling operations cut high grade ore on the Utex Te Quiero claim. Twenty-five feet averaged .69 percent with 15 consecutive feet assaying better than one percent uranium.—*Pioche Record*.

Fallon, Nevada . . .

Harry Howard, well known Fallon mining man, has negotiated a contract for 15 patented claims known as the Silver Palace at Grantsville in Nye County. Howard took an option on the claims from Ed Berryman and completed the sale to Paul Litell of Carson City and Auburn, California. The property is located 100 miles from Fallon and 52 miles north of Tonopah. Engineers' reports indicate that 50 tons of ore—tungsten, lead silver and zinc with tungsten predominating—can be produced for a period of five years without any further development. The mill building has already been built, and machines are to be moved in immediately.—*Humboldt Star*.

Las Vegas, Nevada . . .

Production from the kilns of the Manganese Ores Company, which had been shut down since a fire early last summer, was resumed in November, working on the stockpile accumulated while the kilns and mill were idle. The mill was expected to be back in operation the first of the year.—*Las Vegas Review-Journal*.

Tonopah, Nevada . . .

"We've really got a mine now," said Superintendent Frank Kennicott when development work at Summit King Mine definitely established that a large body of ore had been uncovered at the 550-foot level. Kennicott estimated that the ore would average about \$50 a ton, with some spots going as high as \$150 and better. These were typical values in the original strike; since the new find is a continuation of that ore body, there is good reason to believe that values will remain the same and possibly higher, the superintendent reasoned.—*Tonopah Times-Bonanza*.

Fallon, Nevada . . .

Four fluorspar properties are shipping custom ore to the Kaiser Aluminum and Chemical Corporation in Fallon in addition to the mill's principal source of fluorspar from the company's mine near Broken Hills. Charles Cirac's Box Canyon property 22 miles north of Stillwater has been producing since August; Joe and Bob Keller have been supplying about 200 tons of fluorspar a month from two properties, one in Dixie Valley and the other in Iowa Canyon above Austin; and a fourth property, owned by C. J. Smith and R. L. Tiefel, is furnishing ore from Venice Canyon near Ione. The company's Broken Hill mine has been producing steadily since the mill opened last year.—*Fallon Standard*.

Tonopah, Nevada . . .

Gold ore as low as \$5 per ton is said to be commercially profitable when processed in a newly invented centrificator mill. The small mill, weighing only 75 pounds, will dispose of 25 tons of crushed ore during an eight-hour shift. The dry ore is spun in the mill and concentrates deposited on one side, waste on the opposite. Invented by Edward Parr, former Yerington resident, the mill has been in use at the Lambert titanium mine in Solomon Canyon, California, with reported excellent results.—*Tonopah Times-Bonanza*.

Henderson, Nevada . . .

Capacity of Titanium Metals Corporation's unit in the former Basic Magnesium Plant has steadily increased since it began operation in 1951. Production, which was one ton daily when the plant first opened, is expected to reach 10 tons a day before the end of the year. Titanium Metals Corporation is the only titanium producer today whose integration runs from mining to selling the fabricated metal. It draws ore supplies from National Lead, processes them in ingots at Henderson and utilizes the Alleghany-Ludlum Steel Company's facilities for fabrication of sheet metal, strip bars, forgings and wire.—*California Mining Journal*.

Ely, Nevada . . .

Work on the big new copper pit to supplement the Deep Ruth pit in Eastern Nevada is to get under way immediately, according to John C. Kinney, Jr., general manager for the Nevada Mines Division of Kennecott Copper Corporation. The pit, to be known as the Veteran, is expected to yield 20 million tons of slightly less than one percent copper ore. It will be 2500 feet long, 1500 feet wide and 660 feet deep. Estimated yield is 5000 tons of ore per day, and the pit is expected to last 10 or 12 years.—*Pioche Record*.

Yerington, Nevada . . .

Production of more than 5,000,000 pounds of copper precipitates a month is scheduled before the end of the year at Anaconda Copper Mining Company's huge oxide deposit four miles west of Yerington which went into operation in November. The ore body is estimated to contain 35,000,000 tons of commercial grade ore. The open pit in which mining is conducted is presently about 4000 feet long, 1700 feet wide and more than 150 feet deep. Anaconda is understood to have expended approximately \$33,000,000 on the project, which has an estimated life of 12 to 15 years.—*Pioche Record*.

Eureka, Nevada . . .

Recent diamond drilling in the Adams Hill section of the Nevada property of Eureka Corporation has indicated a new ore body of excellent grade. The deposit lies a mile or more north of the Fad shaft workings and was located at a depth of about 900 feet, somewhat above the horizon where the Fad workings encountered extreme water problems. Preliminary results in the new section suggest a gross grade of about \$100 per ton in lead-zinc, gold and silver over a thickness of 12 to 15 feet.—*Pioche Record*.



The desert packrat (*Neotoma orolestes*) will steal almost anything he can carry away, often leaving something in exchange. Photo by N. H. Kent, U. S. Fish and Wildlife Service.

Robber Rat of the Desert...

By MARGARET OSBORN

THE PACKRAT is a thieving little scoundrel who will steal anything from anybody. But, although he can purloin an amazing amount and variety of merchandise, the better one gets to know him, the easier it is to forgive the little kleptomaniac. Eventually, he provides as much amusement as he does vexation.

More like a squirrel than a rat, with his fluffy tail and clean shiny fur, the packrat has a friendly personality and considerable intelligence. He can knock a peach from a tree, jump down and roll it ahead of him, or wind his tail around an egg and pull it behind him. For smaller loot, he makes use of special pockets in his mouth, designed by Nature for digestive purposes. These he crams full of grain, buttons or anything else that will fit.

The packrat likes his own kind, and he likes people—the more people the better, for this means a greater variety of interesting things to steal. Although strictly a country boy, preferring the desert, he delights in taking advantage of civilization wherever he finds it. He invites himself to live with campers, miners and ranchers—or as near as they will allow him to come. He will move into a cabin without encourage-

A pebble for a fountain pen — that's fair exchange on the packrat market. Margaret Osborn tells about the life and habits of this vexing yet lovable rascal rat of the desert.

ment and bring his horde of possessions with him.

If nobody tries to kill or catch him, he often becomes quite tame. Several years ago an Arizona prospector had a pet packrat named Jake, who, the miner claimed, was the reincarnation of his deceased partner. According to him, the transmigration of soul was a big improvement. Jake danced, Indian-hop style, on the kitchen table which was better entertainment than he ever offered in human form.

The packrat has other names—woodrat and traderrat—the latter, because he usually leaves something in exchange for what he takes. Actually, he has no such honorable intentions as trading. Even if he did, his idea of mercantile values is certainly one-sided in his own favor. He merely drops whatever he happens to be carrying at the moment and picks up something he fancies more. People who know him are not surprised to find a spoon missing and a cactus-

joint tucked in the silver drawer. Sometimes he leaves nothing, but always he takes something.

Practically everything ends up in his nest. That very fact probably made a rancher near Socorro, New Mexico, quite happy. While riding the range one day, the cowboy lost his lower plate. Some time later he decided to clean out the rats that were robbing his feed supply. In a rat nest he found his missing teeth—special delivery.

In constructing his nest, the packrat is clever at making the most of materials at hand. He collects almost anything portable and stacks it wherever he pleases, on the bare ground, in a roll of barbed wire or under somebody's house. The base of a mesquite tree is the favorite foundation upon which he piles small sticks, cow chips, cactus and tin cans. Under all this pile is often an excavation, sometimes with several rooms, and the sticks are stacked so as to shed water. Occasionally he makes his home in a rock ledge, filling every crevice with odds and ends.

The packrat needs no sensible reason for busily picking up, transporting or piling any number of objects in any given place. Sometimes he will stack little rocks on big rocks, appar-

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ently just for fun. He will move, one at a time, pecans from a full gallon bucket and hide them under your bed, or haul 50 pounds of shelled corn from one side of the shed to the other.

Unlike his town cousins, the packrat's sin is not wholesale destruction. He can, of course, gnaw until doomsday, because his teeth have continuous roots and grow as they wear off. His fault is in what he can tote away, which is plenty. Since packrats range over almost all of North America, under one alias or another, a tremendous amount of loot disappears every day.

The packrat also can be a big nuisance at night. Pattering around inside walls, over roofs and under the house, a few packrats can sound like a cavalry charge. Even worse, if several set their larcenous sights on the same object, the quarrel of squeaks and squeals is terrific. Most of their battles, however, are verbal, and generally they seem friendly toward each other.

Proof of the little rascal's sociability with his own kind is evident in the numerous trails that lead from nest to nest. On the other hand, they may not be visiting at all. More likely, they are stealing from each other every minute.

LETTERS

Facts from a Naturalist . . .

Death Valley, California

Desert:

In the November issue of *Desert*, Vernon F. James writes that he is convinced snakes swallow their young during times of peril.

James is, of course, entitled to his opinion; but his particular account is a good example of why herpetologists will continue to consider such reported instances as "old wive's tales" until conclusive evidence is presented to the contrary.

James recites an incident about 30 years ago near Lake Arrowhead, California, during which a rattlesnake of undisclosed size and sex was shot in a burrow with a shotgun. When it was subsequently dragged out, ten baby rattlers "fell out" of the snake.

While the authenticity of this event may be readily accepted, the interpretation of just what occurred is almost certainly erroneous.

Many snakes, including the rattle-snake, give birth to living young. Prior to birth the baby rattlesnakes are present in the swollen uterus of the female, each one encased within a delicate capsule made up of the embryonic membranes. Normally, at birth the



Packrat nests are constructed of anything and everything and may be found on the bare ground, in a roll of barbed wire, under a house or, as in this case, under the hood of an abandoned automobile. Photo by Harry R. Osborn.

young are extruded from the cloaca of the female and must fight their way out of their embryonic sac. Upon emergence they are around 9 inches long in most western species of rattlesnakes. (The length of 4 inches given by James is possible but certainly unusually small.)

I suggest that a more feasible explanation of the incident reported is that the unfortunate rattler was a gravid female and that the force of the shotgun blast tore open the body cavity of the snake (possibly rupturing the embryonic membranes) and allowed the litter to fall out.

Ten is a reasonable litter size in the western species. Had James recorded the date of this occurrence it could have served to strengthen or weaken my hypothesis inasmuch as baby rattlers are usually born in early fall.

Lastly it might be noted that a 3 foot rattler may take from five to ten minutes to swallow a small mouse. Now even granting some degree of cooperation by the terrified juvenile and considering its smaller size, it is not unreasonable to assume that at least 30 seconds would be required for one baby to reach the "safety" of its mother's stomach. Ten babies—five minutes. Not a very effective method of protection!

FREDERICK B. TURNER
Park Naturalist

Water in the Chocolates . . .

Chino, California

Desert:

In his "Life on the Desert" story in the November issue of *Desert Magazine*, Seward White tells his story of the Lost Ebner Mine and mentions one camp at Pegleg Well, known originally as the Pegleg Mine, in the Chocolate Mountains.

The striking of water in the shaft of the Pegleg Mine was as much of a surprise to those of us who sank the shaft in 1906 as it would have been had we stumbled onto some of Pegleg Smith's black gold nuggets. The well drew water from Salvation Spring or from a natural tank nearby.

The only nuggets I ever saw in the Chocolates that were large enough to stub your toe on were black iron. There was one copper stringer carrying good values in gold and silver, but the ore petered out in a few feet.

GEORGE PARK

* * *

Far From Home . . .

Arcadia, California

Desert:

In his story "Crystal Field at Quartzsite in the September issue of *Desert Magazine*, Jay E. Ransom refers to the organpipe cactus (p. 12).

I believe he meant senita cactus. I have never seen any organpipes as far west and north as Quartzsite.

H. O. BAUERLE



Sign on the desert near Wendover, Utah.

Humor on the Desert . . .
San Francisco, California
Desert:

The accompanying picture was taken along Highway 40 just east of Wendover, Utah, on the Great Salt Desert of Utah. It would be interesting to know who, or what organization in that vicinity, had such a delightful sense of humor. Actually this lone sign takes some of the monotony out of that drab horizon.

HARRY J. BILLICA

Perhaps one of Desert's Utah readers can tell us the story of this sign—for there must be a story connected with it.—R.H.

• • •
Strictly a Western Problem? . . .
Torrey, Utah
Desert:

For many years I have been reading Randall Henderson's editorials in *Desert* protesting against roadside litter. The last issue of *National Parks Magazine* contains some very pertinent photographs on the same subject. As superintendent of Capitol Reef National Monument I have the same problem and have to clean up the roadsides at least once a week. But this bad situation seems to be a strictly western problem. Let me tell you my experience.

We have just arrived home in Utah after a vacation trip of 5100 miles, which took us as far east as Dearborn, Michigan. After we entered Nebraska we saw no roadside litter whatever until our return to Utah! All through the middle western states the roadsides are continually kept clean by state crews. We saw not more than six beer cans on the whole trip. And we only

saw one crew cleaning up the cans and papers.

Which simply proves that roadsides can be kept clean, even in western states, if the road commissions will hire a few extra men to do the job. I doubt if the mileage in roads is any greater in California than in Illinois, per capita.

Another thing which pleased us was the number of small roadside parks or rest stops. Some of these consisted only of a shade tree, table and trash can, while others were beautifully landscaped around a spring or natural feature. They were numerous enough so that drivers could pull out of traffic every few miles for a few minutes' rest or lunch, and they showed much use. Certainly they contribute to driving safety, and they cost little. It would seem that our western states should provide something of the kind, especially on long stretches of road such as we have in Utah, Nevada and Wyoming.

All the rest stops we visited, with one exception, were clean. Is it possible that Easterners are more civilized than Westerners?

CHARLES KELLY
• • •

Franciscans Here First . . .
San Carlos, Arizona
Desert:

In the November issue of your excellent magazine (not one issue of which I have missed since Vol. I, No. 1), one of the True-False questions was: "First Americans to explore the Southwest desert were gold-seekers." *Desert's* answer, given on page 40, read: "False. First explorers of the

Southwest were Jesuit padres seeking to Christianize the Indians."

In one of my booklets, *Arizona Discovered, 1539*, published on the occasion of the Arizona Quatro-centennial in 1939, I gave a free translation of the diary of Fray Marcos de Niza—a Franciscan Friar (like myself) who had explored the desert in the early part of the year 1539. The Jesuit Order wasn't founded until the latter part of that year, in Paris. Another half century passed before the first Jesuits arrived in Mexico and another half century before Fr. Eusebio Kino, S.J., began his work of Christianizing the native desert inhabitants. And, as Bolton shows, Kino had been preceded by miners looking for gold.

FR. BONAVENTURE OBLASSER, O.F.M.

Father Oblasser of course is correct—the Franciscans did precede the Jesuits to the desert Southwest. But both he and *Desert's* editors missed the question. The first Americans to explore the Southwest desert of course were miners, although they were preceded by the Spanish missionaries. Thank you to Fr. Oblasser for correcting our history—and a big goose egg for *Desert's* true-false quizmasters.—R.H.

• • •
Targets for Travelers' Trash . . .

San Diego, California
Desert:

Most of the people who throw beer cans along the highways are throwing at something—a tree, a sign, a fence-post, a telephone pole. Why not provide targets every other mile or so to collect the trash? It's going to be thrown out the window anyway, so the clean-up crews might as well get it localized.

L. CUTHBERT
• • •

Seconds Roadside Park Idea . . .

Isabella, California
Desert:

Your recent suggestion and comments that something drastic should be done about keeping California highways clear of beer cans, bottles and other trash, probably voiced the thoughts of many citizens. The debris does spoil the beauty of the landscape; and anyone who has had a serious tire blowout caused by driving over broken glass would agree it can be dangerous.

The roadside park idea is a fine one, and would be a wonderful convenience for travelers. During our vacation trip last fall to the Middle West, we noticed many of these little parkways, and numerous motorists were enjoying their use.

MRS. R. G. LUTHEY

Here and There on the Desert

ARIZONA

New Canyon Vistas . . .

GRAND CANYON — Tourists to the Grand Canyon soon will have a new look at the rainbow-hued chasm. Since June, road crews have been carving out two road segments which will give Canyon visitors easier access and a better view of the natural spectacle. The new outlook will be from Mather Point, a jutting two-pronged cape about three miles east of Grand Canyon village. Two trails from the 120-car parking lot will lead to a pair of fingers protruding from the canyon rim. These will be cleared and protected by guard rails affording a view area from which the sheer canyon will drop on three sides. — *Yuma Daily Sun*.

* * *

Tombstone Not So Tough . . .

TOMBSTONE — At least one resident of this old silver camp doesn't remember Tombstone for its bad men and hell raisin' days. Benjamin Terrell Powers, who operates a little mine near Cordes, Arizona, remembers meeting "some of the best people who ever lived" in Tombstone. "Badmen? Yes, there were badmen who were hanged or shot; but they had it coming to them. We hear plenty concerning the badmen and little of the quiet, ordinary folk who went peaceably about their business," he said. Powers, 86, came to Tombstone in 1882 to escape a yellow fever plague in Alabama.—*Tombstone Epitaph*.

* * *

"Earp Shades Them All" . . .

TOMBSTONE — Wyatt Earp was a greater man than Napoleon, according to a British fan of the Old West. "I recently read again the life story of one of your greatest old-time marshals, Wyatt Earp," Denzil E. Wilson of Kingston Hill, Surrey, England, wrote to "the Sheriff of Tombstone." "What a wonderful man he was," said Wilson, rating Earp above Napoleon, Churchill and Eisenhower. "Pity a few like him are not around now." — *Tombstone Epitaph*.

* * *

GANADO — Several buildings, including a new \$50,000 trading post, were destroyed when fire swept the Navajo reservation town of Nazlini near here. The blaze, brought under control by construction workers from the nearby Nazlini school, raged from midnight to dawn, completely gutting the trading post owned by Mr. and Mrs. David Stiles, absent on a business trip.—*Yuma Daily Sun*.

Discover Yucca Use . . .

KINGMAN — A California fertilizer firm is building a small plant in west Kingman to process yucca plants into a carrying medium for liquid fertilizer.

The yucca extract, a dark brown fluid the consistency of molasses, is combined with nitrogen, potash and phosphates to make an effective fertilizer. Its use in irrigation water aids the fertilizing elements to penetrate the soil more readily.—*Las Vegas Review-Journal*.

* * *

Would Extend Pharmacy Law . . .

PHOENIX — All drugs now sold on Indian reservations are offered by traveling salesmen and itinerant peddlers and have been found sub-standard in many cases, Newell W. Stewart, pharmacy board secretary, told the Navajo Tribal Council's advisory committee. Stressing the importance of regulating sales of pharmaceutical products from the standpoint of quality and safe use, Stewart urged that Arizona's pharmacy laws be extended to the reservation.—*Yuma Daily Sun*.

* * *

Skins Without Bullets . . .

LEUPP — A Navajo Indian medicine man from Leupp is in the market for the skin from a deer which has died a natural death or from one accidentally killed by a car, bus or train. Frank Howard explains he needs the skin for Navajo medicine bags and for other medicinal purposes. Skins from deer killed by guns may not be used, he said.—*Phoenix Gazette*.

* * *

TOMBSTONE — Frank King, early-day cowboy, newspaperman and author of books portraying the West's pioneer days, died November 8 in California at the age of 90. A good friend of Col. Jeff Milton, he had visited Tombstone many times while the Miltons lived there. Among his best known books are *Pioneer Western Empire Builders*, *Wranglin' Wranglers* and *Mavericks*.—*Tombstone Epitaph*.

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Arizona Indian Council . . .

SAFFORD — A new statewide council of the Arizona Association of Indian Affairs is being organized in 12 of the state's 14 counties. Three representatives will be named from each of the counties and each of the 14 Indian tribes in Arizona. The council's purpose will be to bring about close cooperation between reservations and neighboring communities in solving Indian needs and problems.—*Phoenix Gazette*.

* * *

No Slums for San Manuel . . .

SAN MANUEL — Residents of the new Arizona town of San Manuel in Pinal County, 43 miles northeast of Tucson, will not be faced with a slum area of shacks and tents, generally a feature of boom towns. Unsupervised building will not be permitted by the San Manuel Copper Corporation which owns all the land for miles around. A modern sewer line, without cesspools, is being constructed as well as paved streets, sidewalks and a carefully planned business district. A newspaper, the *San Manuel Miner* was scheduled to begin publication December 17. It is estimated San Manuel eventually will have a population of 6000 to 8000.—*Phoenix Gazette*.

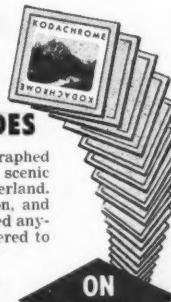
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Tombstone's Past . . .

TOMBSTONE — On Joe Rossi's pizza house in Tombstone there now appears this inscription: "Formerly Jacob Meyers Clothing. Virgil Earp was shot from the door of this building, December 28, 1881." The sign is part of a campaign to mark famous old buildings and historical sites in the frontier town. The sign campaign is a project of the Tombstone Restoration group.—*Tombstone Epitaph*.

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CALIFORNIA

Treenappers Fined . . .

MECCA—Three Los Angeles men learned the hard way that it is against the law to remove smoke trees from the desert area. They were apprehended on Highway 111 near Mecca, hauling a truck and trailer load of smoke trees. The trees were to be used for decorative purposes. The men were fined \$25 each and the trees confiscated and burned. A section of the Penal Code declares it a misdemeanor if any person "willfully cuts, destroys, mutilates or removes any native trees." The offense is punishable by not more than \$200 fine or imprisonment for not more than six months, or by both.—*Indio Date Palm.*

Fortyniners Elect . . .

DEATH VALLEY—George Savage of San Bernardino was elected president of the Death Valley '49ers at a meeting held at Furnace Creek Ranch. He succeeds Paul Palmer of Newhall. Other newly-elected officers are Dr. Thomas Clements, first vice-president; John Anson Ford, second vice-president; Arthur W. Walker, treasurer, and Joe Micciche, secretary. — *Las Vegas Review-Journal.*

For Tourist Information . . .

BLYTHE—Construction is under way on the new \$50,000 Blythe station of the California Safety Stations, an enterprise designed to serve the traveling public entering the state over its major highways. Other stations are scheduled at Yuma, Yermo, Barstow and Truckee. When completed, the Blythe station will be open 24 hours a day and will offer a recreation room for tourists, free orange juice, travel information of all types, safety checks on automobiles, California traffic law tips and other services. No charges will be made for any of these services. The stations will be financed by various agencies they serve and from advertising revenue from an extensive tourist information booklet the organization will publish.—*Palo Verde Valley Times.*

Fossilized Salt Water Tree . . .

RANDSBURG—One of the first salt water trees in California was recently discovered by Zirist Rizir, Randsburg miner. The specimen is a natural cast or fossil of a whole tree about eight inches in diameter. The tree had rotted and left impressions of bark and limbs in calcareous tufa. Rizir said he believed the tree existed before Salt Wells Canyon was under water and, as the water receded to the coast, was left saturated with calcium that hardened in the sun. — *Times-Herald.*

Jets Uncover Wagon Trail . . .

MUROC—Engine blasts from jet airplanes taking off from the dry lake bed at Muroc have blown away sands to reveal the tracks of two-wheeled carts and the hoofprints of oxen. The tracks, preserved in solidified sandstone, are remnants of the days when Spanish ox-drawn carretas traveled the modern flying strip.—*Northrup News.*

Controversy Author Suicides . . .

INDIO—The man who started all the controversy about how the Gulf of California might someday surge into Imperial and Coachella valleys and flood them out will never see his fantastic theory proved or conclusively disproved. Wealthy author Randolph Leigh, 65, hanged himself November 2, after killing his beautiful French wife with a shotgun. The murder and suicide were committed at the author's home in Langley, Virginia. In 1941, Leigh, a New York yachtsman, made a cruise in Mexican waters and wrote a book about his adventure, *Forgotten Waters*. In it he asserted that someday the tidal waters from the Gulf of California would surge up over a 40-foot barrier and swoop down upon Imperial and Coachella Valleys, completely flooding the rich agricultural areas. He advocated that the United States "acquire" Baja California, and build restraining walls to eliminate the danger. The theory was later restated by other authors and each time subsequently refuted by irrigation engineers.—*Indio Date Palm.*

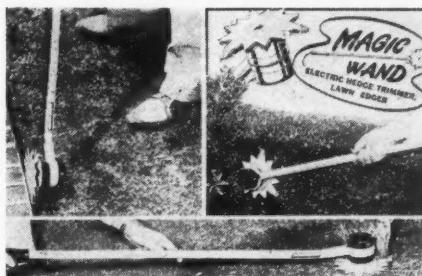
NEVADA

Water Supply Assured . . .

FALON—"Next year's water supply is pretty well assured," smiled Watermaster Harry Richard just before the end of the 1953 irrigation season in November. The reservoir held 160,934 acre-feet of water, which indicated a 60 percent carryover for next year. Lake Tahoe's level is high, Richards said, and with an average winter, it probably will be necessary to dump water from it next spring. All of the Truckee River flow, about 500 second-feet, is being diverted at Derby for Lahontan.—*Fallon Standard.*

New Roof for Landmark . . .

AUSTIN—To protect it from further deterioration by winter weathering, a volunteer crew was organized to put a new roof on the historic Gridley Store in Austin. Once the roof has been completed and the old stone walls braced, the 90-year-old building's interior will get a face-lifting come spring. Plans are to make the famous building into a historic museum with memorabilia of Nevada territorial days.—*Reese River Reveille.*



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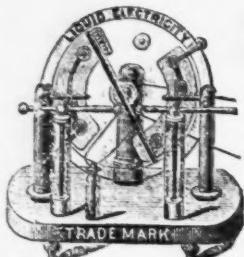


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Cave Information Wanted . . .

CARSON CITY—Data on caves of any size or kind are requested by the Western Speleological Institute of Carson City, a non-profit research group devoted to the study and observation of natural caves. "We have found local reports of invaluable assistance," reports Raymond deSaussure of the Institute, "no matter what the size, remoteness or significance of the rock cavity. Even reports of dubious nature have often proven of aid in the location and study of unexplored caves." The group just completed a period of investigation in the Grand Canyon region and plans further study in the area next spring.

For Desert Farmers . . .

LAS VEGAS—A patch of Southern Nevada wasteland previously conceded to jackrabbits and sagebrush has been reclaimed by two young Southwesterners who hope to develop it into a productive agricultural area. Dick Washburn and James Shaw have staked out a 7000-acre plot on an alluvial delta about 800 miles northwest of Las Vegas and have begun initial development. Washburn said water was struck at a depth of 296 feet and the water level has risen steadily since the first shaft was sunk. According to John Fenley, county agricultural extension agent, the soil is potentially highly productive and capable of producing good crops of fruit, vegetables and grain.—*Las Vegas Review-Journal*.

Daily Flights to Death Valley . . .

LAS VEGAS—Bonanza Air Lines began daily flights to Death Valley from McCarran Field, Las Vegas, with the start of the tourist season November 15. The daily service will be offered only during the winter tourist season, Bonanza officials explained. On the approach to Furnace Creek Airport in Death Valley, plane passengers will be able to sight the highest point in the United States, Mt. Whitney, and the lowest point, the Death Valley floor.—*Goldfield News*.

Dam for Virgin River . . .

MESQUITE — Plans have been drafted for a permanent dam, to be used for irrigation purposes, on the Virgin River near Mesquite. The dam, 300 feet across, would be constructed of railroad rails and filled in with rocks and earth. Residents of the area agreed that a dam should have been built years ago. Makeshift dams go out during the crop season two to 10 times a year and require two to three weeks each time to build a brush-and-log replacement.—*Las Vegas Review-Journal*.

New Lake Mojave Resort . . .

BOULDER CITY—Newest resort in the Lake Mead National Recreation Area, the Katherine concession, was opened recently. It is located on the Arizona side of Lake Mojave, offering cabins, a cafe, boat dock, boats and service facilities. Expected to become a favorite spot for fishermen, Katherine can be reached from either U.S. Hwy. 95 or U.S. 466-93.—*Las Vegas Review-Journal*.

• • • NEW MEXICO

Indian Cultures Safe . . .

ALBUQUERQUE — The desire of the government to wean Indians from federal trusteeship does not mean it wants them to give up and forget their own tribal culture, Indian Commissioner Glenn Emmons told a group of 200 leaders of 26 Indian groups in New Mexico and Southern Colorado. He said the object of the government's plan is to give Indians the same opportunities for advancement and the same freedom and responsibility in management of their property as other Americans. "I know that there are some tribes which are ready and anxious to take over full responsibility for their own affairs at the earliest possible time and that others will have to move toward that objective more slowly," he said. "I recognize that in many areas there is a real need for a continuation of the trusteeship and will be for several years."—*New Mexican*.

• • • Indians in Industry . . .

GALLUP—First goal of the campaign to "readjust" American Indians as "first-class" citizens will be to get private industry to utilize the manpower on the reservations, according to Glenn Emmons, U. S. Indian commissioner. Emmons said he has asked private foundations to make studies on the various reservations, "to try to come up with some solution to establish living economies." The studies further would decide whether private industry could be induced to employ Indians in plants on or adjacent to the reservations. Emmons said the study would take several months in each Indian area, getting ideas of tribesmen and businessmen.—*New Mexican*.

• • • Travel for Nuts . . .

ALBUQUERQUE—The New Mexico pine nut crop was poor this year, and a large group of Navajos traveled to Nevada for their winter's supply. The Indians use the nuts for flour and other ingredients of their basic diet. One group of more than 100 Indians camped several weeks in the Tonopah, Nevada, area while they gathered nuts in nearby mountain ranges.

Indian Art in Washington . . .

WASHINGTON — Southwestern Indian paintings by Pueblo, Navajo and Apache artists of New Mexico and Arizona were included in the huge exhibition of American Indian art at the National Gallery of Art presented in November and December. "Although contemporary in general appearance and individually inventive, these works derive from the oldest painting traditions in America," Dorothy Dunn of New Mexico State College explained in her introduction to the exhibit catalog. Pueblo paintings in the show depicted scenes of hunting and occupations of field and home as well as graphic representations of supernatural beings and ceremonial dances. The Navajo offered adaptations of their classic sandpainting designs and glimpses of their healing ceremonial, the Yeibichi. The Apache paintings portrayed warriors, rituals and gods. —*New Mexican*.

Ask Ft. Union Monument . . .

WATROUS — Years of effort by individuals and organizations to establish the ghost fortress of Fort Union (*Desert*, Feb. 1953) as a national monument were rewarded when the Union Land and Grazing Company agreed to donate 860 acres of land for the purpose. The company made the proviso that the land revert to the company if the site ever is abandoned as a national monument. Compensation of \$20,000 will be paid to ranchers for land lost by the access road bisecting their properties.—*New Mexican*.

Burro Plague in Gallup . . .

GALLUP—In late November, burros began descending from the hills and congregating on city lawns, tearing up gardens and generally disturbing the peace in Gallup—as they do each year when winter cold begins. Police were called upon by home owners to corral and deport the beasts.—*New Mexican*.

UTAH

Protest Horse Slaughter . . .

SALT LAKE CITY—Every Navajo brave needs a horse, even after death. This bit of Indian belief came to light through interpreters as a band of Navajos fought to collect \$100,000 damages from the United States for alleged slaughter of 150 of their horses. The Indians live in the Montezuma Creek area of southeastern Utah. They claim the federal Bureau of Land Management slaughtered 150 horses on their lands and that without them

it is difficult to live on the arid desert reservation. The Bureau of Land Management range manager at Monticello, Utah, admitted that he had not served notice individually on the Indians as required by law and that some animals were shot when they might have been rounded up. On one visit, the Indians accused the BLM man, four Indian women were handcuffed together when they raised objection to the horse slaughter.—*Salt Lake Tribune*.

Hearing on Upper Dams . . .

WASHINGTON—Hearings on authorizing legislation for the first phase of the Upper Colorado storage project, including proposed Echo Park and Flaming Gorge dams, has been scheduled as the first order of business of the House irrigation subcommittee when Congress reconvenes in January. The bill represents the end result of interstate negotiations and comprehensive planning that has been under way for more than 30 years. The formal hearings, set for January 18, are the first any congressional committee has given the vast Upper Colorado program.—*Vernal Express*.

Cold Winter Ahead . . .

SALT LAKE CITY—Ute Indian weather forecasters, although somewhat stumped this year by a variance of signs, predict cold weather for Utah this winter: not much snow until late December or early January, then fairly heavy snows. The Indian weathermen do not use shiny, expensive, scientific equipment; they read Nature's indicators, the animals and plants of the forest—and they haven't been wrong the last four years. The Indians note the thickness of fur on various animals, the color and texture of the skin—this year these indicate a cold winter. A hard winter will come if the deer mate by November 1 (they still hadn't mated by the 15th this year) or if bears and squirrels hibernate early (they didn't this season). One sign was impossible to interpret this year. The thickness of bark, particularly on brush, is usually a sign of a hard winter. But, due to the drouth, the brush is withered and a true interpretation is impossible. Indians generally feel that a cold winter with little early snow follows a period of drouth.—*Salt Lake Tribune*.

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Navajos High Bidders . . .

MONTICELLO—Navajo Indians were high bidders on 4959 acres of San Juan County land lying within their reservation, the Utah State Land Board announced. However, ownership of the land is in dispute between the state, which claims title of the school land grants attached to it when the government completed a survey in 1916, and the federal government, which included the acreage in a 1933 reservation withdrawal. The Navajo tribe bid \$5 an acre on 2400 acres, and their tribal treasurer offered \$6.70 an acre on the other 2559-acre parcel. Completion of the land sale pends further hearings.—*Salt Lake Tribune*.

Utah Pioneer Museum . . .

EAST MILL CREEK—Pioneer stores and shops, Indian exhibits and other reminders of early-day Utah are included in the Sons of Utah Pioneers Museum which opened here November 20. The museum is located on three acres of ground and includes such items as the last surviving wagon of Johnston's Army, a grist mill, the old Brigham Young home, a Capt. Horney Ft. Bridger coach and the old A. Warr General Merchandise Store which was moved complete with some of its merchandise from Kamas. Official program of the museum's opening night was printed on one of the first printing presses brought into the state and now on display in the museum.—*Salt Lake Tribune*.

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NEW SLATE OF OFFICERS FOR SAN ANTONIO SOCIETY

Elected at the October meeting to serve San Antonio Rock and Lapidary Society this club season were Jesse Burt, president; Grant Woodward, vice-president; James Pegg, secretary; Hazel Gray, treasurer, and B. J. Lamm, director. First meeting planned under the new leadership was to feature an auction sale with Raymond Rock as auctioneer.

PEARL DIVING TOUGH SAYS SOCIETY SPEAKER

Pearl hunting is not an easy occupation, Colonel Keirstead discovered when he joined a pearl-hunting expedition to Ceylon. Three years later he went to the Persian Gulf and again had no luck. Divers kept his party on the move, and the British Pearl Syndicate did not encourage competition. Finally Col. Keirstead discovered rich pearl water—in the rivers, brooks and lakes of Midwestern United States. Although beautiful pearls, they were not accepted by jewelers and customers until they had been shipped to Paris and returned to this country as Oriental pearls. Col. Keirstead told of his pearl hunting experiences to fellow members of San Diego Lapidary Society at a recent meeting.

Fresno Gem and Mineral Society already has set the dates for its 1954 show. The exhibit will be in Fresno, California, May 1 and 2.

Two field trips were planned in October for members of San Fernando Valley, California, Mineral and Gem Society—to the Ventura River October 24 and 25 and to Darwin and the Anaconda Copper Mine dump October 17 and 18.

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EASTER WEEKEND SET FOR ROCK SHOW AT YERMO

Plans already are under way by the Yermo Chamber of Commerce for the 1954 rock, gem and mineral show to be held at Yermo, California, April 17 and 18. Exhibits will be arranged in the Yermo school building. Prizes will be awarded to amateur and professional collectors, junior exhibitors and commercial dealers. Field trips will be conducted into the Calico Mountains, and sunrise services will be held Easter morning. Advance information on the show may be obtained from the Yermo Chamber of Commerce or Calico Fred, Chairman, Yermo, California.

PLAN WESTERN BARBECUE AS CONVENTION BANQUET

A western style barbecue will serve as banquet at the 15th annual convention of the California Federation of Mineralogical Societies, to be held in Indio, California, March 26 to 28, 1954. The convention committee, comprised of representatives from Coachella Valley Mineral Society and San Gorgonio Mineral and Gem Society, co-hosts, has set a \$1,808.88 budget for the event.

Opalized wood — good cutting material with beautiful color and texture—is found near Bernardo, New Mexico. Santa Fe Gem and Mineral Club visited the site in November.

Dr. Andrew Still Wallace spoke on "Gemology" at the November meeting of the Fresno, California, Gem and Mineral Society.

At a recent program of El Paso Mineral and Gem Society, subjects jumped from lion hunting in Texas to the manufacture of glass. Two films, "Lion hunting on the Cameron Ranch" and "Sand and Flame" were shown by Member Sparky Quinn.

Glenn Elsfelder, president of Hollywood Lapidary Society, has suggested formation of a new committee, to prepare a short talk for the meeting before each field trip, describing the history and geology of the area to be visited. "For instance, how many rockhounds know that once there was a borax mine in Tick Canyon and that howlite, a silico-borate of calcium, is found there?" asked Elsfelder. Tick Canyon was the group's November trip destination. The proposed "briefing" before field excursions would increase interest in the area, he said, and give members an idea of what they are likely to find at the site.

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AMONG THE ROCK HUNTERS

October meeting of Clark County Gem Collectors of Las Vegas, Nevada, was a potluck supper at Boulder Beach.

Annual stone judging contest was announced at a recent meeting of Minnesota Mineral Club, St. Paul. Prizes will be awarded for the largest Lake Superior agate, best quality polished Lake Superior or Minnesota agate, largest thomsonite, best quality thomsonite, most unusual stone and best binghamite. All entries must have been found during the past year.

Carroll Chatham discussed synthetic emeralds and other synthetic gems on an evening program of San Francisco Gem and Mineral Society. Following the speaker, reports were given on the group's successful gem and mineral fair.

Life in a remote weather station in Greenland was the subject of Forest E. Layton's illustrated talk to Chicago Rocks and Minerals Society. An exciting event during his stay at the weather base was the discovery of a rock outcropping containing trilobites. Layton showed some of the better trilobites as well as Eskimo artifacts, carved walrus ivory, Eskimo fur clothing and an ivory frame kayak.

Annual auction of Sacramento Mineral Society was held October 23 at Turn Verein Hall, Sacramento, California. George MacClanahan was auctioneer.

The weekend after Thanksgiving was occasion for Southwest Mineralogists to leave Los Angeles smog for the desert. They planned an overnight field trip to the Baker area to search for turquoise, garnets in plates of mica, feldspar crystals, talc, graphic granite, malachite, azurite, galena and quartz crystals.

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Evansville Lapidary Society's *News Letter* carries a book review section in which it tells members about books and magazines pertaining to the mineral collecting and gem cutting hobbies.

"The Hopewell Culture of Illinois" was to be discussed by Dr. John C. McGregor at the November meeting of the archeological interest group of the Earth Science Club of Northern Illinois.

Rock swapping, a spelling bee and a panel quiz were scheduled for the "member participation" evening program of Shadow Mountain Gem and Mineral Society, Palm Desert, California, in December.

Gemologist Oscar Branson discussed "Identification of Faceted Gem Stones" at a meeting of Santa Fe, New Mexico, Gem and Mineral Club.

Central Illinois Rockhounds traveled to Carlinville, Macoupin County, to study earth history. The trip was under the direction of the Illinois Geological Survey.

Gordon S. Kennedy, an accomplished carver of precious and semi-precious stones, was guest speaker at a recent meeting of the Gem Cutters Guild, Los Angeles. He discussed "The Art of Stone Carving," and displayed examples of his work.

L. J. Bergsten has good news for California jade collectors. Although the Wyoming fields rapidly are being depleted, reports Bergsten, there is every indication that California has yet undiscovered deposits. A high quality of jade was found recently on the coast between Eureka and Crescent City; Trinity River also has yielded jade, as have Porterville, the Consumes River and several other localities.

A tour through the Colorado Rockies was presented by E. V. Van Amringe at the November meeting of the Mineralogical Society of Southern California, Pasadena, California. Illustrating his talk with colored slides taken on the month-long summer trip, he took his audience to old mines and ghost towns as well as to mineral sites and scenic mountain areas. He showed his collection of minerals from the Colorado Rockies, and other members brought specimens they had found in the state. Van Amringe is head of the physical science department at Pasadena City College.

Sand concretions and petrified wood were the objectives of Glendale Lapidary and Gem Society when members took a weekend field trip to the Salton Sea.

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A successful field trip to Antioch was enjoyed recently by members of the East Bay Mineral Society of Oakland, California. They searched for petrified wood, and everyone came home with good cutting material.

Compton Gem and Mineral Club rockhounds no sooner returned from a field trip to Tick Canyon for natrolite, bloodstone, agate and howlite than they were planning the next excursion to Nipomo. Harold Hodson was in charge of the Nipomo trip, scheduled for November. The area yields good sagenite and petrified bone.

Two groups of Nevada rockhounds, El Dorado County Mineral and Gem Society and Fallon Rock and Gem Club staged a joint field trip recently. They searched for ammonites—ancient shell fish probably belonging to the Jurassic age—on Ammonite Hill near Fallon.

A movie, "Handwrought Silver," was viewed by Pasadena Lapidary Society at its November meeting.

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Books For Rockhounds . . .

Manuals, dictionaries, field guides—books to suggest new rock-hunting trips and books to take along to help identify specimens. Here are some suggested additions to the hobby library of the rockhound beginner as well as the experienced mineral collector.

FIELD GUIDE TO ROCKS AND MINERALS. Frederick H. Pough. Color illustrations. Textbook covering the whole field of minerals for both student and veteran mineralogist. \$3.75

TEXTBOOK OF MINERALOGY, Ed. S. Dana (Ford 4th edition). Abbreviation of classic System of Mineralogy. Crystallography, Physical Mineralogy, Chemical Mineralogy, Origin, Mode of Occurrence and Association of Minerals, Descriptive Mineralogy. Illus., index, 851 pp. \$7.50

GETTING ACQUAINTED WITH MINERALS, G. L. English. Simple, interesting, accurate introduction to rocks and minerals. How to collect and identify them. Descriptions, identification tables, pronouncing vocabulary, index, 258 illus., 324 pp. \$5.00

FIELD BOOK OF COMMON ROCKS AND MINERALS, F. B. Loomis. Nature Field Book series. For collecting, identification. 144 pages on minerals, 96 on rocks. Minerals in which color is important for identification are illustrated in color. Many photos, drawings. Geological time chart, biblio., index, 352 pp. \$4.50

MINERALOGICAL DICTIONARY, Chambers. Forty colored plates show about 200 minerals in their original colors to help the reader recognize them. Indispensable to the mineral student. \$4.75

MINERAL COLLECTORS HANDBOOK, Richard M. Pearl. How to build and care for a collection; gems, crystals and meteorites, fluorescence, chemistry, tests; definitions and origin of mineral names, reading lists, staking a mining claim, list of mineral societies—and many other helps for the collector. \$3.75

MINERALOGY MANUAL, F. B. Roseveau, editor. Handy, simple manual of geology, chemistry, crystallography, blowpipe and chemical tests, physical properties, descriptive mineralogy, gems, building a collection, 133 experiments for identification. Photos, drawings, paper. \$1.50

ROCKS, RIVERS, AND THE CHANGING EARTH, Herman and Nina Schneider. A first book about geology. The earth as it was millions of years ago, as it is today and as it will be millions of years from now. Many easy-to-do experiments help explain earth science to young readers. Index, 171 pages. \$3.00

THE FIRST BOOK OF STONES, M. B. Cormack. For Children. Makes stone collecting easy and exciting for beginners. Large type and plenty of simple illustrations. 90 pp., index. \$1.75

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Stressing economy, B. W. Morant told members of Hollywood Lapidary and Mineral Society his ideas on equipping a home lapidary shop.

"Here's your chance to get more cutting material," suggested invitations of Evansville, Indiana, Lapidary Society to a November auction sale. Colonel Hodson was named auctioneer, and all revenues were slated for the club treasury.

Movies of operations at the Denver-Gardner Mine in Monument Valley showed members of the Mineralogical Society of Arizona modern methods of underground mining. A second film depicted diamond mining in Africa. The society's first fall field trip was to Saddle Mountain west of Phoenix where good specimens of chalcedony were found.

The monthly bulletin of the Mineralogical Society of Southern California, formerly mimeographed, now appears in three-color ditto. Maps, drawings and diagrams illustrate feature and field trip articles.

Tom Warren of Ultra-Violet Products Company presented his "Magic with Black Light" program for Shadow Mountain Gem and Mineral Society, Palm Desert, California, in November. He brought specimens from his collection to use in demonstrations of fluorescence.

Members of the Earth Science Club of Northern Illinois planned to attend the Illinois State Geological Survey Field Conference at Carbondale, Jackson County, Illinois. They would join in study of limestone, sandstone and shale of Pennsylvanian and Mississippian age, coal strata, marine fossils, Caseville escarpment, limestone caverns and glacial deposits.

Harry Oliver, desert humorist and editor of the *Desert Rat Scrapbook* was scheduled guest speaker on the November program of Coachella Valley Mineral Society, Indio, California. Member participation part of the evening presented a group of members who discussed caves—their origins, physical characteristics and commercial possibilities. They showed a movie on Carlsbad Caverns, New Mexico.

Besides the fun of bidding for specimens, the auction earns money for the society, members of Chicago Rocks and Minerals Society were reminded in an announcement of the annual event. There would be a special table for juniors. Chairman Clell Brentlinger added, which will offer less advanced specimens at lower prices.

First securing a permit from the Mexican government allowing each member of his party to take home 25 pounds of gem material, Jim Moore led a group of San Diego Lapidary Society members on a field trip to Pinto Mountain, Baja California. From Tecate, the caravan followed the new highway through Alaska, turning at the head of Laguna Salada and driving across the desert toward Black Mountain. Their final campsite was about 3 miles south of Pinto. During the day, the rockhounds found good specimens of mahogany-colored and opalized wood, clear quartz crystals, iron pyrite nodules and agate.

Don MacLachlan, editor of *Gems and Minerals*, addressed Glendale Lapidary and Gem Society recently. He related the history and geology of the Coso Mountains, in the Searles Lake region of California, illustrating his remarks with colored slides.

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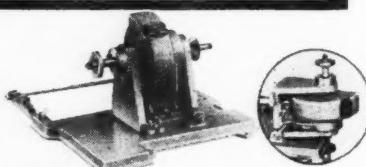
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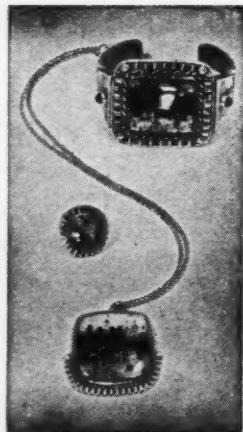


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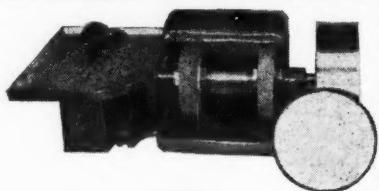
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January Photo Contest . . .

Did you get a camera for Christmas? Or a new light meter, a tripod, a slick new lens for that old Rollei? Here's the chance for Desert Magazine readers to try out their Christmas gift camera equipment—and maybe win a prize in Desert's monthly photo competition.

Entries for the January contest must be in the Desert Magazine office, Palm Desert, California, by January 20, and the winning prints will appear in the March issue. Pictures which arrive too late for one contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

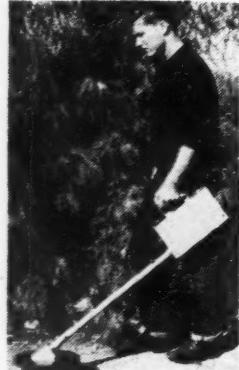
The Desert Magazine

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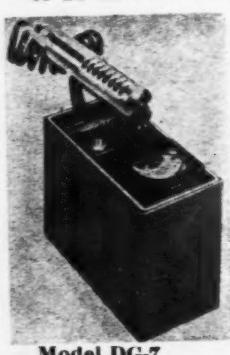
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The ancient mines of Cyprus were operated by the Phoenicians in 1500 B.C. They became active again in 1912 after a lapse of about 1600 years and still are mined today. James L. Bruce, vice-president and consulting engineer for Cyprus Mines, Inc., told the Mineralogical Society of Southern California about the island and its mines, showing colored slides depicting the landscape scarred with ancient dumps.

"The first efficient dredge in California came from New Zealand in 1896," Herbert Sawin told members of the Gem and Mineral Society of San Mateo County, California, when he spoke to them about gold dredging. To conclude his talk, he showed three films, depicting gold recovery operations in Alaska, dredging in the United States and the launching of a dredge.

Fallon Rock and Gem Club members are compiling a book of accounts of their field trip outings. They plan to call it *The Lore of Lahontan*.

Door prizes especially for juniors are given at each meeting of the Mineralogical Society of Arizona. The specimens—three for first and three for second prize—are small but of excellent quality.

Gordon Bailey spoke about his favorite "bragging rocks" at an evening meeting of Southwest Mineralogists, Los Angeles. Afterwards, he invited other members to show and describe their bragging pieces, and short talks were given on prize specimens by Perry Williams, Jeanne Lippitt, Dorothy Craig, Jack Craig, Jim Hall, Cora Standridge, Herbert Collins, Herman Hodges, Jack Lasley, Gertrude Saling and Jim Ruddy.

TRUE OR FALSE ANSWERS

Questions are on page 24

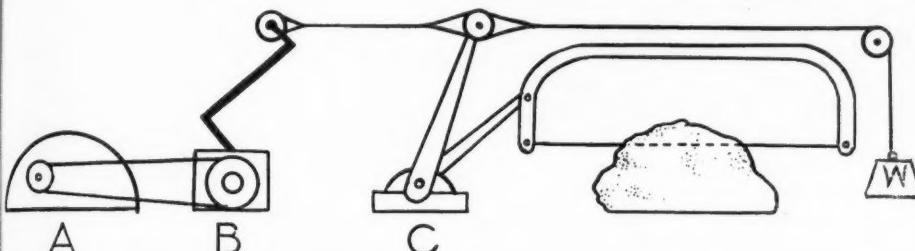
- 1—True.
- 2—False. A spot near Bennett's Well, elevation 281.9 feet below sea level, was recently proved lower than Badwater in Death Valley, 279.8 below, long considered the lowest point in the U. S.
- 3—True.
- 4—False. Hoover dam is located in Black Canyon.
- 5—False. Gold-bearing ore is found in many colors.
- 6—False. Sunset crater is believed to have been dormant for more than 800 years.
- 7—False. Pueblo Indian women fire their pottery in an open fire generally using manure for fuel.
- 8—True. 9—True. 10—True.
- 11—True. 12—True.
- 13—False. The native habitat of the Gila Monster is in Arizona east of the Colorado River.
- 14—False. Scotty's Castle was financed by the late Albert M. Johnson.
- 15—False. The Mormons migrated West under the leadership of Brigham Young after Joseph Smith's death.
- 16—True.
- 17—False. Lee's Ferry was discontinued when Navajo bridge was built.
- 18—True.
- 19—False. *Camino* is the Spanish word for road or highway.
- 20—True.

AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

Two months ago we discussed the efforts of Jean Foley in experimenting with the wire saw after the manner of the Chinese. Since that time we have had a cut made of an illustration showing how this saw works. In the illustration (below) a quarter horse power motor (A) turns a hand crank bench grinder (B) to operate the wire saw on a $\frac{1}{8}$ inch arbor (C). For further information on the use of the wire saw the reader is referred to the October issue.

* * *

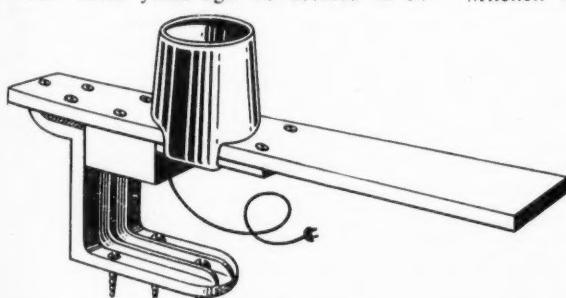


We have had several correspondents write to us lately about new methods of dopping gemstones to the end of sticks but the only advance in technique that seems to be worth recording at the moment is the new electric dopper that has come on the market, an illustration of which is presented below.

The origin of the word dop is rather obscure but we seem to remember reading several years ago that it originates in the Holland Dutch word for daub. Since the stick to hold the gemstone is daubed with wax it is called a daubstick. This appears to be a logical explanation, and while it is not important, any new method of using such a stick is welcome news if it eliminates some of the drudgery from the fun. Fussing with dop sticks and dopping is akin to washing the dishes after a good meal; just a necessary evil.

The new electric dopper is the invention of an instructor for 15 years in the lapidary shops of the Chicago Parks Field Houses. Ray C. Mitchell writes that in his classes several hundred stones are dopped each week and he has been looking for a method that eliminates burned fingers, dripped wax and damaged stones. The electric dopper is now used in his classes.

In recent correspondence Mr. Mitchell writes "some years ago we decided to ex-



periment with a temperature controlled electric heater unit, maintaining the wax at a proper plastic temperature, and providing a hot plate surface for heating the stone to proper dopping temperature. A unit was finally evolved consisting of an electric heater element and a variable ther-

mostat mounted at one end of a wide strip of metal. The wax pot is placed on the top of this strip and may be moved to any spot on the strip where proper temperature is maintained. When in use the pot is kept directly over the heating element and the thermostat is set to maintain the wax at 250° F.

"The metal table is 17½ inches long by 3 inches wide. At the furthest end from the heater the temperature of the plate is about 190° F. This is a safe temperature for pre-heating heat-sensitive stones. The temperature increases as the stones are

moved closer to the heater end of the plate, giving a gradual increase to dopping temperature. We place opals on a piece of cool asbestos paper on the cooler end of the plate, thus allowing the stone to heat with the asbestos and eliminate the shock between a cold opal and a hot plate."

Mr. Mitchell offers another valuable dopping tip that is new to us. He has a small can filled with a rag that has been soaked in kerosene or fuel oil for moistening the fingers when setting the wax around the stone. The advantage is that the oil does not evaporate like water and there is no need to be constantly refreshing the insulation. Any excess will not crack a hot stone, a danger when a lot of cold water is used. It seems to us that a rag soaked in glycerine would be even better and it would also be safer to have around the shop. Oil soaked rags are hardly in the safety tradition.

Use of the temperature controlled electric unit is very economical. No wax is wasted and none is ever spoiled by overheating. There is no wax drippage and you eliminate gas burners clogged with wax or wicks of alcohol burners crusted with it. The pungent smell of burning wax is absent. Mr. Mitchell reports that thousands of stones

have been heated on the electric dopper without one of them being damaged by too much heat or contact with a flame. This gadget seems to be the greatest advance in lapidary technique since the invention of "peel-em-off" cement for sanders. The electric dopper is now on the market and if any reader is interested we will gladly supply the price and the name of the manufacturer if a return postage paid card is included with your request.

And now—Christmas greetings from our desert home. We have said before that the first Christmas was on the desert, but a fact known to few is that the three greatest spiritual leaders of all time were all born and raised on the desert—Christ, Mohammed and Confucius.

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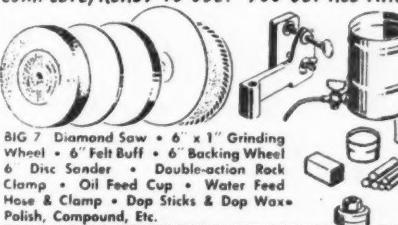
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By RANDALL HENDERSON

HERE ARE two annual dates on the California desert calendar which I hope I will never have to miss. One is the Desert Cavalcade at Calexico, to be held next year in April, and the other is the Encampment of the Death Valley 49ers, held annually in November.

This year's encampment in Death Valley reached a new high in interest and entertainment. The estimates of the number of visitors at the 3-day program this year ranged from 3000 to 6000. But 6000 people can be dispersed over Death Valley's 2500 square miles of mountains and canyons and playas and dunes, without anyone being pushed around by a crowd. The largest number of spectators I saw at any one event was the 1200 who gathered in the natural amphitheater at the Texas Spring camp ground for the Saturday night campfire program. Some of them brought camp stools, but a majority of them found balcony seats among the rocks on the hill that overlooked the cove.

The 49ers are a very informal non-profit organization dedicated to the idea of perpetuating the historical traditions of the desert's most arid frontier. The officers serve without pay and there are no racial or other restrictions as to membership. Members contribute \$2.00 annually, or more if they wish, and the fund is used for necessary expenses. The entertainment is all contributed.

One of the highlights of the program is the North American men's chorus which returns year after year to take part in the campfire programs at Texas Spring and the Sunrise Services in Desolation Canyon. This chorus is one of the finest in Southern California, and in the still crisp air of a Death Valley campfire setting its music is something out of this world.

Out on the Furnace Creek golf course the 49ers hold an outdoor breakfast for desert authors, and another for desert painters and photographers. These breakfast affairs are open to everyone—the authors and artists and photographers merely furnish the entertainment. It is worth a 300-mile motor trip just to hear John Hilton and Emil Morhardt. Both of them are artists and writers, but art and journalism are just two of their many hobbies. Both play the guitar. John is a baritone and Emil a tenor. As they sing they take turns twanging the guitar, and there isn't a more delightful radio or television program anywhere than these two younger-generation desert rats put on for the Death Valley visitors.

Paul Palmer, outgoing president of the 49ers, drove to the Castle this year and invited Death Valley Scotty to be a guest at the author's breakfast.

"I dare not repeat the exact language Scotty used in declining the invitation," Paul explained the next morning when we were all seated around the tables on the golf course.

But Scotty did consent to the recording of an interview—and that was a show in itself. Scotty summed up his philosophy of life in four words: "Never complain; never explain." And those who know him well agree that he really lives by that code.

The 49er program included entertainment for everyone—an art exhibit at Furnace Creek Inn, square dancing at the ranch, displays of gems and minerals and old firearms, campfire programs, Sunrise services—and last and most hilarious of all was the Burro race and Flapjack contest at Stovepipe Wells hotel. Originated in 1952 by Harry Oliver, the 1953 event was a complete success—the burros ate all the flapjacks.

George Savage of San Bernardino is the new president of the Death Valley 49ers. He has worked hard in the staging of the annual encampments, and I am sure he will carry on the fine programs initiated by his predecessors, John Anson Ford, Ardis M. Walker and Paul Palmer.

* * *

My appreciation this month to Rudi Sidler, manager of the elegant El Mirador Hotel in Palm Springs, for his contribution to the desert—and to the visitors who come each winter to this land of sun and sand.

Rudi is a comparative newcomer to the desert, but he had the vision to realize at once that most of the folks who come to the desert are interested in something more than swimming pools and cocktail bars. And so he added a naturalist to the hotel staff.

He secured the services of Lloyd Mason Smith, former director of the Palm Springs Desert Museum. Lloyd's job is much the same as it was at the museum—to establish a closer contact between the guests of the hotel and the fascinating desert to which they have come.

Lloyd arranges motor trips, exploration treks, Nature walks—and in the evening gives lectures, answers questions, and shows movie slides, all as part of a program designed to make the visitors better acquainted with the beauty of the desert which lies beyond the grim horizon seen from the paved highway.

This is good business for the hotel—for all the hotels. For when the visitors learn to regard Smoke Tree, Ironwood, Ocotillo, Beavertail, Jojoba, Larrea, Chuperosa and all the little wildlings of the dunes as old friends, they are very likely to come more often and stay longer.

Of course it is easy to say that the El Mirador is a big rich hostelry and can afford to do that. My answer is that one of the most successful operators I have ever known had a modest little motor court with only his wife and himself and a chambermaid for a staff—and after a couple of years of study and observation he was able to conduct his own Nature trips into the desert. He always had a waiting list for his cabins.

BOOKS of the SOUTHWEST

LOST MINES, TREASURES ALONG THE OLD FRONTIER

It is easier to lose than to find a mine in the desert country. Thousands of canyons, each with its confusing set of gulches, scar the mountain ranges, and the flats are endless miles of sameness. Flash floods or shifting sands threaten what meager landmarks the prospector can find to help map the return trip to his claim.

So many of the richest mines have become lost — bonanza strikes worth thousands, possibly millions of dollars, which were found, then lost and never found again.

Treasures, too, lie hidden in the Southwest sands — the doubloons of Spanish Conquistadores, buried loot of thieves, gold and silver bars from Jesuit mission mines. For one reason or another, their owners were forced to bury these treasures, and never found opportunity to return for them.

The tales told of these lost mines and buried treasures are fascinating reading. A master story teller in the field is John D. Mitchell who has spent a lifetime tracking down clues to the Southwest's lost lodes and writing about them. Many of these stories have appeared in *Desert Magazine*.

In November, *Lost Mines and Buried Treasures Along the Old Frontier* was published by Desert Magazine Press. Maps by Margaret Gerke introduce each chapter, showing the general locale of the story and circling the approximate site of the lost mine. Endmaps showing modern highway routes place these individual chapter-heading maps in the Southwest, to help amateur lost mine seekers plan vacation trips into legend-rich areas. Action of the stories is illustrated in wash drawings by John Hansen.

Published by Desert Magazine Press, Palm Desert, California. 240 pages, 18 illustrations, 50 maps, endmaps, index. \$5.00.

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TREASURY OF OUTDOORS FOR SPORTSMEN, CAMPERS

Settled back in his armchair with the *Ford Treasury of the Outdoors*, the sportsman in one evening can go foldboating on the treacherous Yakima River, hunt wild boar in Tennessee or coyotes in Nebraska and catch the world's largest trout in northern Idaho.

The *Treasury* is a collection of 64 articles about outdoor sports which have appeared in *Ford Times*. In it is a wealth of information on fishing,

hunting, boating and camping — and tips to successful outings: how to select the right tent for a specific use, how to fish by a "time table," how to cook delicious dishes outdoor.

There are many animal profiles scattered throughout the book, giving unusual sidelights into the life of the coyote, gila monster, roadrunner, badger, skunk, horned toad, wild boar, mountain goat and other wildlife. One chapter, "Kind Words for Bad Birds" spikes some common rumors about hawks and owls. The animals are represented in paintings by well-known artists.

Combining information and entertainment Ford's *Treasury* is a book for everyone who likes being outdoors.

Published by Simon and Schuster. 256 pages, every page in color. Countless full-color paintings and photographs. \$2.00.

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TUCSON WAS FOUNDED BY SPANISH PADRES

During the last two or three decades Tucson, Arizona, has been so busy taking care of its rapidly increasing population its civic leaders have given little thought to the preservation of the monuments of its colorful past.

Fortunately, Bernice Cosulich many years ago became interested in the story of Tucson's transition from a little settlement of adobe huts to the famed cultural and resort city it is today.

For 20 years—during that critical period when old landmarks were disappearing and at least a few of the men and women who had lived through the stirring early days were still alive to give their firsthand information—Mrs. Cosulich has been gathering material for her book *Tucson*.

Her story starts in the days of the Spanish explorers—when Fathers Kino and Garces were bringing Christianity to the Indians who dwelt in the Southern Arizona desert. Famed San Xavier del Bac and the other missions and visitas of the Spanish padres were the foundation of the growing communities of today. Through Tucson march the priests, the soldiers, the pioneer adventurers who brought civilization to the New World.

Mrs. Cosulich has performed a real service with her tremendous research and has written a book which adds greatly to knowledge of a region the ancient beginnings of which are too often forgotten in this modern era of overpowering expansion.

Published by Arizona Silhouettes,

Tucson. 296 pp. with glossary, brief chronology and extensive bibliography. Cloth \$5.00, leather \$10.00.

COWBOY-ARTIST RECALLS EARLY LIFE ON THE RANGE

Filled with dust and mesquite, colorful cowboy talk and memories of the days when there were more wild horses than cattle on the vast open ranges, *Lost Pony Tracks* is the story of Ross Santee's experiences as a horse wrangler in Arizona.

Writing in a style as casual and easy as a western drawl, Santee reminisces about the everyday life of the cowboy — from the monotonous weeks of mending fence to the danger and excitement of stampedes or summer flash floods. He tells about the cowboy's work and his recreation, and in the telling he conveys much of the peculiar nature of both cowboys and critters, for most of the ponies and steers had personalities as individual and temperamental as the men who handled them.

Men, ponies, outlaws, cattle, Indian fights, wild horses, Saturday night dances in the schoolhouse, bunkhouse practical jokes—*Lost Pony Tracks* is a fascinating chronicle of range life in the early years of this century. The stories are illustrated with the author's freely-brushed, action-packed sketches.

Published by Charles Scribner's Sons. 303 pages, \$3.95.

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Books reviewed on this page are available at Desert Crafts Shop, Palm Desert



Another guide to desert trails — this fascinating, map-packed, mystery-jammed book by John D. Mitchell, dean of Southwestern lost mines authorities. Fifty one tales of lost and buried treasure, illustrated by maps of the supposed bonanza sites and wash drawings of story action. Pegleg's Black Nuggets, Lost Breyfogle Mine, Lost Adams Diggings, Lost Blue Bucket Gold, Lost Dutchman Mine and other less famous lost lodes.

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By FREDERICK H. POUGH, Curator of Minerals, American Museum of Natural History

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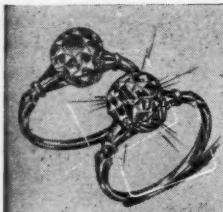
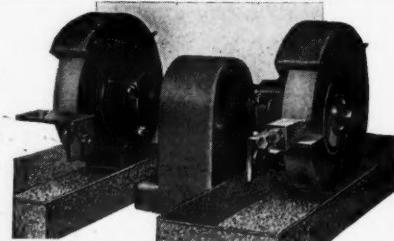
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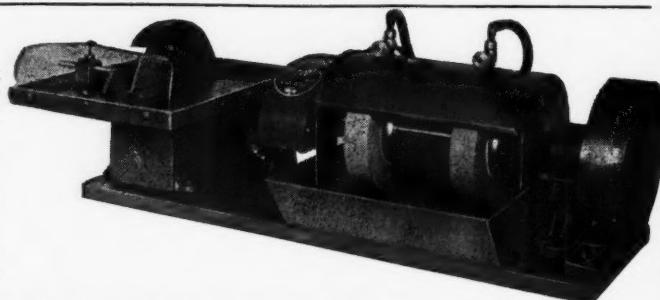
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